

Indices of Health and Sickness
in
University Students.

A study based on the work
of the
Student Health Service
St. Andrews University (in Dundee)
during the years
1948 - 1952.

By

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PART 2.

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Part 2.

Annual Reports, Student Health Service,

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At an early stage Introduction.

When in October, 1948, the University of St. Andrews inaugurated a Student Health Service, I was one of the two Medical Officers appointed. My duties lie in that part of the University situated in Dundee.

Since then it has been my practice to submit to the University authorities an annual report of the work and activities of my side of the Student Health Service during the preceding academic year. The idea occurred to me, I think, while working on the report for the year 1950-51, that albeit in a very small and modest way, these annual reports were possibly contributing a little to the sum of knowledge in the social aspects of medicine.

Over each period of one year a small group of people had been studied in health and in sickness. Certain findings at medical examination during health or at medical attendance in illness had been recorded. If no unjustifiable conclusions were attempted, the facts recorded might at least be of interest if not of value. At some later date was born the idea that in the facts recorded there might be the material for a thesis in the subject of Social Medicine. Since then a good deal of my spare time has been devoted to the preparation of the thesis now presented.

At /

At an early stage it was appreciated that my own annual reports dealt with too few students and were themselves too limited in scope to give a sufficiently representative picture of all that is now implied in the term "student health" and that only by drawing on the much wider experience in universities elsewhere could my own material be set in correct perspective.

The aim then became a thesis covering the whole field of student health study in this country, reviewing the work done in the subject to date and comparing my own findings and standards with those obtained by my colleagues in other universities in Britain and in Northern Ireland. Even that aim had to be modified when it was found that several volumes would be required to deal adequately with every aspect of the subject.

In its final form the thesis became an attempt to consider in some detail certain of the main features of the work of university health services in this country, to review the standards of health and sickness that are now emerging, and to evaluate my own findings in this small university in the light of these standards. It is fully appreciated that a subject such as "Tuberculosis in Students" dealt with in one section here, has in it the material for an entire thesis to itself. The restriction was imposed here in order to preserve something of the original intention which/

which was to give a general review of student health work.

The thesis is presented in two parts. In the first, some of the main features of student health work are discussed and my own findings set against those obtained by colleagues working in other universities. Certain opinions expressed are my own and would not necessarily be endorsed by the Student Health Committee or by the Court of this university.

The second part consists of the actual annual reports I have submitted to the University Court during the four years I have worked as one of their Medical Officers. These reports, although containing certain personal views which on some points have varied or undergone modification as experience was acquired, present the factual data on which were based the various comparisons and conclusions set down in the first part of the thesis. For that reason if for no other, it was felt desirable to include these reports as an integral part of the thesis. Attention is directed particularly to the report for the year 1951-52 which on some points summarises the experience of four years' work in this university.

I trust that in the title of the thesis, the use of the word "indices" is not misleading. In conditions like clinical, pulmonary tuberculosis, it is probably true to state that there is now an accepted figure which represents with some accuracy the expected incidence/

incidence in university students. But more frequently I have used figures for their descriptive value only and no precise statistical significance is claimed for them.

It is a pleasure to acknowledge here my indebtedness to the many teachers, colleagues and friends whose work is referred to in these pages or whose advice and experience have influenced my own outlook on certain problems.

From 1935 until 1947, I followed my profession in the Indian Medical Service. It was an unforgettable experience to practise medicine in that strangely fascinating country with its variety of peoples, its extremes of wealth and poverty and a social pattern so utterly different from anything that can be judged by Western standards. But service in India kept me out of this country during the War years and I was denied the opportunity of observing at first hand the new chapter that was being written in our social history.

My first year on return to this country was spent in studying for the Diploma in Public Health at the University of Edinburgh. My thanks are firstly to those members of the teaching staff of the Usher Institute there who taught me the new concept of "Social Medicine" and who so patiently tolerated my endless questions.

I came from Edinburgh to my present appointment in the University of St. Andrews where, in inaugurating and developing a Student Health Service in the Dundee side of the university, I was faced with the practice of one aspect of social medicine. I have to thank not only medical colleagues for professional advice and assistance but also many members of the University teaching staff for the encouragement and cooperation without which very little could have been achieved.

Mention must also be made of those colleagues and friends engaged in student health work in other universities. Their knowledge and experience, in most cases far beyond my own, have always been at my disposal in the friendliest possible manner. It is a pleasure to record my grateful thanks and appreciation.

Lastly I have to thank my Nurse-Secretary, Miss Brand, not only for secretarial work in this present connection but for the excellent work she has done for the Student Health Service of this university.

H. J. Gibson,

Student Health Service,

St. Andrews University.

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Section 1.

History of Student Health Services.

This section presents a short history of the growth and development of Student Health Services in the universities of this country.

1870 The history goes back some thirty years. In the 1920's certain teaching hospitals such as my own (Edinburgh Royal Infirmary) provided special accommodation for the students of the university with which they were associated. To the "students' wards" in such hospitals any matriculated student of the associated university had the right of entry and came under the care of the particular physician or surgeon who had been approached for advice. No one member of the hospital teaching staff was charged with the care of students, nothing was organised, there was no routine medical examination compulsory or otherwise; the system was unorganised, haphazard and happy. As far as treatment during illness was concerned, the system worked very well in the case of those students, mainly from the Faculty of Medicine, who knew how to make use of it. Other universities catered for their sick students on rather similar lines.

A decade or so later, news began to reach this country of the approach made by universities in Scandinavia and the United States to the problems of/

of student health and welfare. These countries and Germany had been developing the view that their universities must accept responsibility for the physical as well as for the intellectual welfare of their undergraduates. This view found acceptance among undergraduate associations in this country and in 1933 the National Union of Students of England and Wales issued a memorandum outlining facilities in British universities and drawing attention to the need for extending existing provisions.

On the basis of this memorandum, the Students' Representative Council of Sheffield University put certain recommendations for a Student Health Service before their Vice-Chancellor. He, in turn, submitted the recommendations for consideration by the Committee of Vice-Chancellors of all British universities. This was probably the first official intimation to university authorities of the student point of view on matters concerning "Student Health" in the sense in which that term is now used, that is as embracing all matters related to the medical examination, radiography, treatment etc. of undergraduates.

Only general trends can be discerned during this phase. No accurate information as to the position in individual universities can be obtained. There was as yet, no co-ordination of views or ideas on the subject, and certain universities still held and expressed the view that matters touching physical/

physical health and welfare were the responsibility of individual students and not of university authorities.

About this time one or two universities introduced a voluntary insurance scheme of their own. Oxford, for example, introduced its University Provident Association in 1932. Any undergraduate was eligible for membership and for an annual payment of three guineas obtained certain benefits with regard to medical attention and treatment. The provision of spectacles, protective inoculations and certain specialist investigations were specifically excluded.

Liverpool and Leeds Universities offered free medical examination to all entering students but the limited nature of the scheme seemed to make little appeal to students and the number taking advantage of it was disappointingly small.

Such was the general picture up to the outbreak of the second World War - a certain measure of agreement that university authorities should accept some responsibility for the physical care and welfare of their undergraduates but no unanimity as to the best and most practicable way of doing it.

The official student point of view was again put forward in 1943. A booklet "Health and the Student" was published jointly by the British Medical Students' Association, the National Union of Students, the British Dental Students' Association and the Scottish National Union of Students. This booklet/

booklet reviewed progress to date and exhorted members of the four organisations concerned to stimulate local interest in the subject of student health among both students and authorities in the universities. It also outlined a model scheme to be aimed at and in general did a great deal to make known the student point of view.

"Health and the Student" reviewed the replies to a questionnaire that had been submitted to thirty-one universities and colleges in this country during the year 1939. Six of these had compulsory medical examination of all students on entry, five had voluntary medical examination on entry and seventeen had some form of medical service in existence. By 1943, the figures in these three categories had become nine, ten, and nineteen respectively.

In 1944, the Report of the Interdepartmental Committee on Medical Schools (Goodenough) gave as its opinion that universities should accept responsibility for the health of their students and "should provide a properly organised student health service". This was the first independent yet official report to deal exhaustively with the subject, bringing within its purview not only the subject of medical examination but also questions of recreation, meals, lodgings etc. as affecting student health in its wider aspects. That Report, however, considered that treatment during illness should not fall within the/

the province of any student health service maintained by university authorities. That point of view is rather surprising and one that has not been borne out by practical experience. Universities undertaking this responsibility agree on the value of the measure and its appeal to the students themselves.

In 1945, the Social and Preventive Medicine Committee of the Royal College of Physicians of London considered some of the views put forward in the booklet "Health and the Student" and invited representatives of various student bodies to a further discussion of them. This Committee after hearing evidence published their Third Interim Report in 1946. They endorsed the recommendations of the Goodenough Report and went further in advocating regular medical examination of all students whilst at university and the appointment of University Medical Officers to supervise and co-ordinate all aspects of student health activities. The Interim Report also indicated that treatment during illness should be provided but no details were given as the National Health Service Bills were before Parliament at the time.

The impending legislation which was to change so radically many aspects of the practice of medicine, while it may have delayed developments in certain fields, certainly appeared to stimulate progress in matters affecting student health. In 1947 the British Medical Students' Association produced an up-to-date survey/

survey of conditions in twenty-six universities and medical schools in Great Britain and Ireland. It could report that two of these had really comprehensive student health schemes, fifteen had some arrangement for the medical care of sick students, and nine formed an intermediate group which as well as undertaking care of illness made some attempt to detect early signs of disease by routine medical examination. There were other points of interest in that particular survey. Only three institutions made chest X-ray compulsory for students on entry and two of these required X-ray examination to be repeated later in the student's career. Seven had compulsory medical examination on entry and four of these required a repeat examination. Fourteen undertook the supervision of student lodgings, eleven provided arrangements for midday meals and twenty facilities for physical recreation.

That is the last student publication to deal with this subject and its figures are already out of date. Since then many universities and colleges have started a student health scheme, others have extended existing facilities. Tribute is paid here to the part played by students through their associations and organisations in convincing authorities in the universities of this country that they have certain responsibilities as regards the physical welfare of their undergraduates. Possibly ever-extending State control of medical practice would have made inevitable some form of

of medical service within the universities, but the pioneer work done by the students themselves should not be forgotten.

Since 1947 progress has been rapid. The British Medical Journal and the Lancet have published papers on student health subjects some evoking correspondence and editorial comment. In 1947 the Nuffield Provincial Hospitals Trust sponsored a conference at Oxford devoted entirely to the subject of student health. The late Professor J. A. Ryle was Chairman of the Conference and in the same year Honorary President of the British Medical Students' Association. He had constantly helped students in their endeavours to ensure adequate medical supervision during their university years and his untimely death robbed them of a very good friend to their cause.

Since 1947 there have been two other conferences dealing with student health, one at Edinburgh in 1949, one at Cambridge in 1951. At the latter there was brought into existence the Association of Student Health Medical Officers.

Among the Scottish universities, Edinburgh can lay claim to being the first to provide a comprehensive student health service. The original "Students' Ward" in the Royal Infirmary continued to serve a very useful function and in the early 1930's was made part of a unified health scheme under a University Medical Officer. General/

General medical examination and chest X-ray were offered to all students who volunteered. Since then the service has been widely extended and a number of part-time medical officers now work under the direction of a senior physician in liaison with the Department of Public Health and Social Medicine of the University.

In 1946 Aberdeen became the first Scottish university to employ a full-time medical officer. His duties included the medical examination of students and also treatment of them during illness. This university has for some time made regular medical examination compulsory for all students in the Faculty of Medicine.

In 1948 the universities in St. Andrews and Glasgow inaugurated student health schemes under full-time medical officers. In Glasgow with its large and widely scattered undergraduate population, at present only medical examination, chest radiography and Mantoux testing are undertaken by the health service. Any abnormality or defect revealed is first investigated and the findings are then communicated to the student's own medical attendant who retains responsibility for treatment. In St. Andrews, split geographically as it is into two distinct halves, two medical officers were engaged to supervise and administer the student health service. Their terms of reference were "to conduct the medical examination of all students voluntarily presenting for it and to undertake the care and treatment/

| country and University | Has your institution a student health service? If so, does it provide for:- | routine physical examination of all students on entry? | routine psychological or personality assessments? | routine radiographic examinations of chest? | subsequent physical and radiographic examinations? | inspection, from the point of view of general hygiene, of college premises, hostels university lodgings? | What arrangements are there for sick students in respect of:- attendance of a doctor in college, hostel, or lodgings? | attendance of a nurse in college, hostel, or lodgings? | anti- pated | Consult- ants in Prof.Med. Unit | Not yet | (a) University Funds |
|------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------|---------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------|---------------------------------------------------------------------------------|
| BIRMINGHAM | Yes | Yes | No | Yes | Vol. exc. med. ann. | Yes | National Health Act | Hostel | As general public | Consult- ants in Prof.Med. Unit | No | (a) University Funds |
| Bristol | Yes | Yes | No | Yes | Ann. | Yes | University doctor National Health Act | Hostel | No spec. arrangts. Local hospital | As general public | No | (a) Univ. (b) Univ. plus National Health Service. |
| Cambridge | Yes | Vol. | No | Vol. | Vol. | No | Host. Univ. Dr. Lodg. Local Dr. | College Arrangts. being made | No spec. arrangts. Local hospital | No spec. arrangts. Local hospital | No | (a) Univ. (b) National Health Service |
| Leeds | Yes | Yes | Yes | Yes | Ann. | Yes | | | Local hospital | Local hospital | No | (a) Univ. (b) National Health Service |
| Liverpool | Yes | Yes | No | Yes | No | No | No | No | No special arrangements Hostels only | Local hospital | No | (a) University Students in hostels receive some visits from University |
| Nottingham | Partial | No | No | Vol. | Vol. If need | Partial | - | No special arrangements Hostels only | Local hospital | Local hospital | No | (a) Univ. (b) National Health Service |
| Sheffield | Yes | Yes | No | Yes | Yes | Yes | University doctor Univ. Dr. for non-loc.studs. } Drs. under Nat. Health Act | No | Royal Infirmary Stud. Ward Roy. Inf. | Teaching hospital | Usually home | (a) Univ. (b) National Health Service |
| Berdeen | Yes | Vol. | With care | Yes | Yes | No | | No | Royal Infirmary Stud. Ward Roy. Inf. | Royal Infirmary Stud. Ward Roy. Inf. | No | (a) Univ. (b) National Health Service |
| Dunburgh | Yes | Vol. | No | Vol. | - | being arranged | | No | No | Roy. Inf. | No | (a) Univ. (b) Univ. plus Nat. Hlth. Serv. |
| J. Andrews | Yes | Vol. | No | Vol. | Vol. | Yes | University Dr. | F-time trained nurse do. | Local hospital | Local hospital | No | (a) University |
| Indee | Yes | Vol. | Yes | Vol. | Yes | Yes | University Dr. | nurse do. | Loc. hosp. | Loc. hosp. | Yes | (a) Univ. (b) Nat. Health Service |
| Lancow | Yes | Vol. | Yes | Yes | Ann. | Yes | No | No | under cons. | under cons. | No | (a) University |

treatment of such minor ailments and conditions as could conveniently be treated in students' lodgings or in hostels".

A final word on this subject to summarise the position at present obtaining in the universities of Great Britain. In 1950 a "Report on Student Health Services" was published by the International Association of University Professors and Lecturers. This was based on data collected from universities of several different countries as relating to their student health services, and was adopted by the Association's Central Council at its meeting in Florence in April, 1950. Reference will be made again to this important report.

A year previously, a questionnaire drawn up by Professor Ryle of Oxford University had been circulated to universities in fifty-three different countries. Certain recommendations made by the Royal College of Physicians of London were included in the questionnaire. Table 1. opposite analyses the replies from the universities of this country. The Table summarises much factual information and I include it here as it gives an up-to-date picture of the present position with regard to the university health services in Britain. Certain technical colleges and comparable institutions have recently inaugurated health services of a kind, but as regards the universities only minor changes in organisation and scope have been effected.

Section 2.

The Object of a Student Health Service.

Had this thesis been written some five or six years ago, a rather lengthy section might have been required under this heading in an attempt to analyse the various issues involved. Such is no longer necessary. The need for a student health service within a university is now fairly well accepted and the objects of such a service clearly defined. Only questions like the scope of such a service and its precise method of application are still subjects of debate.

On both these points I would state here that I am no advocate of uniformity. The universities of this country have differed in origin, in character and in tradition, so too should their health services conform to local requirements rather than to any rigid pattern.

But the ultimate object of all medical practice is to help every human being achieve the right to live in a state of health. "Health" has been defined by the World Health Organisation as "a state of complete physical, mental and social well-being." For the purpose of this thesis I prefer the definition given by Weatherhead in his book "Psychology, Religion and Healing". "Health", he states, "is the complete and successful functioning of every part of the human being in harmonious relationship with every other part/

part and with the relevant environment". Health, according to either definition, can only be attained when all mankind live in good and suitable dwellings, when adequate diet is assured, when work and suitable recreation are available for all, when measures to detect disease in its earliest manifestations have been perfected and when adequate facilities for the treatment of such disease are instantly and freely available to all in need of them.

As it effects the general population, such an ideal state can only be a hope for many years to come. But in many countries, our own well in the van, enlightened public opinion is doing much to bring the ideal nearer and there is no reason why it should not be attained now in the case of a small and selected population such as is found in the students of a university. At least it can be an objective and a worthy one to work for.

The last half century in this country has seen the adoption of many measures directed to the welfare of different groups within the community. Thus the Maternity and Child Welfare Service has grown up and is still developing. Changes in administration and control have not altered its essential function which is to ensure safe motherhood and healthy infancy as the birthright of every child. A glance at infant mortality rates over the last twenty years, or at statistics of infant morbidity as shown in any Medical Officer's report/

report, will show how well this service has discharged its function.

At a later stage the School Health Service takes over charge of the growing and developing child during the school years. Here again the emphasis is on health and the last generation has seen a great expansion in all forms of remedial therapy directed to the attainment and maintenance of health and the correction of remediable defect. Where the ideal cannot be achieved, special measures are available which help the handicapped youngster to overcome as far as possible the limitations imposed by any disability. Such measures along with the integrating influence of the family doctor should ensure that most children reach school leaving age trained in the optimum use of their physical endowment.

Nowadays for a growing number of adolescents, further medical "screening" occurs when they leave school. Those entering the industrial field will become acquainted with the Industrial Health Service. Here again the aim is positive health. Working conditions are supervised and medical standards laid down for certain types of work. Most large industrial concerns now employ one or more medical officers on their staff and pay tribute to the increased productivity and lessened absenteeism from avoidable sickness that result from their efforts.

Similarly/

Similarly young men who elect to proceed direct from school to their National Service training must undergo medical examination for entry into H. M. Forces. Medical examination aims at eliminating the unfit, but for those selected a high standard of medical care is assured them for the duration of their service. Most will carry out their period of training under excellent conditions with all matters touching diet, hygiene and sanitation receiving careful attention. Undue publicity given in the Press to a few unfortunate incidents may have created an impression that medical authority in H. M. Forces can on occasion be negligent in its treatment of sick personnel. Accidents must always occur and it is perhaps right that the public be made aware of them but in general the standard of medical care and skill throughout the Services is a very high one.

As the Industrial Health Service takes over the function of the School Medical Service in the case of those young men and women entering industry, so should a Student Health Service take over the medical supervision and care of those of their contemporaries who are embarking on a university career. Undergraduate students form a group of young people still developing mentally and physically. Although in the main a healthy group it is one not without its own problems and occupational stresses. The average undergraduate enters university at the age of about 17 - 20 years; from the point of view of age alone that difficult period/

period between adolescence and maturity is one when medical supervision and guidance are particularly advisable.

Further, the student body within a university forms a convenient and comprehensive unit within what is itself something of a closed community. It is a carefully selected unit and one that is homogeneous in age, in outlook and in habit of body and mind. It is a unit which can be carefully studied and certain findings subjected to the test of objective statistical analysis. The members of the unit are liable like other people to the common forms of illness; in addition they have certain occupational health problems peculiarly their own.

Students form an important section of the community. It has been held in certain quarters that they are already sufficiently privileged and have no entitlement to preferential treatment in matters affecting their health and physical well-being. Be that as it may it is from the present student community that most of our future leaders in the learned professions, in science and technology, and in the senior ranks of government service will be drawn. It is a community which is already costing the State a great deal of money; it would seem mere commonsense to spend a little more as a means of insuring its health.

It is not enough to offer young men and women a university education. They must be fit mentally and physically/

Section 3.

physically to make the most advantageous use of it and their whole environment should be favourable. These considerations underlay the foundation of student health services in most of our universities.

The essential function of a student health service

.....

is the promotion of health in undergraduates. There are three principal ways in which that function is discharged.

These are:-

- (1) Regular medical examination in health.
- (2) Study and research in the particular occupational problems affecting the student community and a statistical appraisal of anthropometric, physiological and other data.
- (3) Medical attendance and treatment during illness.

Reference has already been made to the "Report on Student Health Services" issued by the International Association of University Professors and Lecturers in 1935. A quotation from that report may serve as an introduction to this present section. The report is fairly up-to-date, it embodies certain important recommendations as for example those put forward by the Royal College of Physicians of London, and based as it is on information supplied by ninety-six universities in thirty-six different countries, it forms a valuable summary of informed opinion on this subject.

Section 3.

These recommendations were put forward by the
Royal College of Physicians. The Function of a Student Health Service.

(1) Universities should accept greater responsibility
(1) Regular Medical Examination.
for the health of students.

(2) The essential function of a student health service
is the promotion of health in undergraduates. There
are three principal ways in which that function is
discharged.

These are:-

- (1) Regular medical examination in health.
- (2) Study and research in the particular occupational
problems affecting the student community and a
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this subject.

These/

These recommendations were put forward by the Royal College of Physicians.

- (1) Universities should accept greater responsibility for the health of their students.
- (2) Arrangements should be made for medical examination after entry and at intervals thereafter during the student's stay at the university, to detect physical and mental disabilities and to indicate the available means for securing advice or treatment.
- (3) Arrangements should be made for the medical nursing of students who are ill.
- (4) Inspection of lodgings should be undertaken by special officers of the university who should pay attention to the health aspect of such lodgings.
- (5) Steps should be taken to improve the diet of students including the provision of canteens and other facilities.
- (6) Universities should consider the appointment of a medical officer for the general supervision of student health.

Ninety-six universities replied to a questionnaire in which these recommendations were embodied, and I want now to consider the part of the report which summarises the information obtained and outlines the view adopted by the Association itself after/

after due consideration of the replies (vide Table 1. facing page 9). I confine myself mainly to the position obtaining in the universities of our own country.

Under the heading "Medical and Physical Examination of the Student" the IAUPL report goes on to state, "It is clear from the replies received that in the health examination of the ordinary student, at entry to the university and on subsequent occasions, very real importance is attached to the examination of the lungs. Of the ninety-one universities reporting some kind of health service, all but five include radiographic examination of the lungs, and in fact some nineteen which have no general examination at entry make an exception in favour of X-raying the chest. It is normal for the initial examination to be followed by subsequent ones at suitable intervals."

"There seems a very general concensus of opinion that there should not be any exacting psychological examination of the ordinary student's mental health. In some of the Canadian universities the matter is approached indirectly, assessment being based on replies received to the other questions. The co-operation of a psychiatrist has by some been found helpful in certain cases. We hold that the indirect approach is the most suitable. The number of cases requiring attention is small and these may come to light/

light either during the general examination or during the early period of university study."

"Two thirds of the universities of the group we at present have under review have a general physical examination at entry over and above the radiographic examination of the lungs. We feel that it is in the best interests of the students that they should be treated as an occupational adolescent group and studied thoroughly. Each student should be allotted sufficient time for a thorough examination."

The report went on to a consideration of the student's environment. "We come now to the question of the provision of physical education for those not taking part in athletics. The replies received indicate considerable variation in practice among the ninety-one universities having student health schemes, only some forty providing physical education for those students who take no part in athletics. There should, however, be elasticity. For some students the most satisfactory form of exercise may be walking. In this connection we reaffirm a resolution adopted by the Brussels Conference of IAUPL in 1947, to the effect that 'physical education if properly regulated is beneficial to intellectual activity but it should be under properly instructed medical direction.' There would appear to be a case in favour of a good many universities being invited to reconsider their policy in this matter."

"In/

"In our view it is of importance that the student's environment receive attention. Much of the good gained from medical examination and advice may be undermined by lack of attention to place of living and conditions of diet and hygiene. Life in separate lodgings is most difficult to supervise and students living in such conditions miss the advantage that may be gained from life in well-conducted hostels and with well-run canteens under dietary supervision where men and women may meet informally. The supervision of these hostels and canteens may be readily placed under the general supervision of the university medical man or dietician. We advocate the policy of providing residential colleges or hostels as the normal thing for those students who do not live in their own homes and the provision of canteens for all. The provision of hostels for the accommodation of all students will occupy time in the case of universities which have not hitherto adopted such a policy. But much can be done by requiring that a student shall reside in a hostel for the first two years. At the end of that time he should be better able to look after himself. When some students have to live in lodgings, a recognised list of these is sometimes kept by the university, and supervisors of such lodgings appointed; it is desirable that this be done and that such supervisors should be trained in domestic science. In most of the universities/

universities reviewed, some of the students do live in outside lodgings. We consider that whether students live in outside lodgings or in university hostels they should be guarded against the necessity of engaging in paid employment during their studies in order to get proper and adequate nourishment. There is a need for a generalising of practicable schemes."

"It seems desirable that health instruction in in some form be given and this is in fact undertaken in nearly one half the universities replying. The method employed differs. It may be a single lecture at the opening of session drawing the attention of students to the existing facilities. It may be by a series of lectures during the session. One university provides a course in dietetics, another gives lectures on sex hygiene and another information concerning venereal diseases. We feel it desirable that all universities should provide a course in personal and social hygiene open to all members of the university. To quote from a report prepared by the United Kingdom branch of IAUPL 'sex problems important as they are would only be dealt with incidentally in the course which should include information on elementary physiology, nutrition, stimulants, exercise, sleep, nervous disorders, infection and contagion, personal hygiene etc., treated as far as possible by specialist lecturers. The working of local health services both in the university and in the neighbourhood/

neighbourhood should also be explained.' What is undertaken will probably vary in different localities, correlation being made with what has already been satisfactorily done at school."

In the concluding paragraph of the IAUPL report from which the above is quoted, the Association give their own recommendations with regard to student health services and the part they should play in university life.

"Finally we as a group composed in the main of laymen, make no apology for expressing our views on these matters. It is to the medical specialist, the dietician, and the physical education expert that we must look for expert guidance, but we hold that the co-operation of the entire university staff is indispensable to the proper working of any health service or health scheme. Unless the administrative officers enjoy the countenance and support of their colleagues and the confidence of the students their efforts will be largely in vain. The health and welfare of the students is not their responsibility only but that of the university community as a whole."

"The Association has already, at its conference in Brussels in 1947, expressed its agreement with the recommendations of the Royal College of Physicians quoted earlier in this report. It will be noted from the replies received to the present questionnaire that many schemes do already exist in the universities which/

which embody to a greater or lesser extent the same features as those recommended by the Royal College of Physicians. We find the general nature of the replies distinctly encouraging. Furthermore we amplify previous recommendations relative to the establishment in each university of a Health Centre on the lines suggested by the United Kingdom branch namely 'we consider that physical education and the student health services deserve to be placed in each university under the care of a separate and influential committee which might be called the Student Health and Physical Education Committee. This committee should include, inter alia, representatives of the subjects closely concerned, such as medicine, social medicine, physiology, anatomy and physical education together with representatives of the non-professorial staff and of the students. As it is most important that the committee should be composed of persons genuinely and actively interested, we do not suggest the above professors or any other representative should serve ex officio, but rather they should be chosen on personal grounds, otherwise there is the danger, ever present where standing committees are concerned, of the meetings descending into a statutory routine. The University Medical Officer and the Director of Physical Education should both be permanent members and should be directly responsible to the committee. The function of the committee/

committee should be to co-ordinate and approve all activities concerned with the general problems of student health, medical examination and care, physical training and education. It might be advisable to constitute sub-committees to deal with different sides of the work, provided the committee retains its overall responsibility for framing and implementing the university's policy on health matters.' We feel it to be of the greatest importance that the students themselves play an active and responsible part in the organisation and running of the student health services."

I have quoted at some length from the IAUPL report for the reasons stated above. The report covered the whole field of student health activity, it presents informed opinion on the subject and its recommendations are in no wise out of date.

At the beginning of this section attention was directed to the three principal methods by which a student health service discharges its function. I propose now to consider in greater detail the first of these, regular medical examination in health. In a later section the organisation and scope of a student health service will be discussed.

Regular Medical Examination.

1. Objects.

The pivot on which all the varying activities of a comprehensive student health service must rest is/

is medical examination of the student on entry into the university and at regular intervals throughout his academic career. Such examinations not only help to ensure the well-being of the individual student but are a valuable preventative measure against ill health in a closed community such as a university. As has been shown, initial medical examination with regular follow-up in subsequent years has been the recommendation of all authorities who have studied the problem.

Such initial medical examination (the precise form it may take is discussed later) would at least ensure that the physical welfare of each individual student is from the outset of his or her career a matter of concern to someone. It would ensure that any physical defect, known to the student or otherwise, would be brought to light and immediate steps taken for its correction. It would make available advice or appropriate therapeutic or remedial measures, so lessening the chances of any defect interrupting or interfering with the student's subsequent career. In certain cases a student might have to be advised against embarking on an academic career until necessary treatment has been undertaken.

In my own experience four cases have been encountered, in which, after consideration of all the relevant factors, serious doubt arose as to the advisability of allowing the student concerned to proceed/

proceed with his proposed course of study. One will be referred to later in the section on mental health.

Three others were encountered early in their first year of study and each had come initially to seek advice concerning some known ailment. I shall not at this point go into the details of their clinical condition. Suffice to say here that they were all older men who had seen active service during the last war. With regard to all three, there were considerations other than purely medical ones which raised doubts as to the advisability of allowing them to embark on an academic career at that age.

These three students were submitted to a very careful medical examination and one was afterwards admitted to hospital for certain specialist investigations. In each case, when all necessary evidence was available, I had a lengthy discussion with the student concerned. He was given the fullest explanation of the nature of his case and warned that study might react adversely on his physical condition. Every relevant factor was given due consideration. Thereafter the choice to continue studies or discontinue them was left to the student concerned.

This type of service is surely among the useful ones that a university medical officer can give to his students. All three students I have mentioned appreciated the full discussion of their condition and/

and the time spent in evaluating the various factors involved. A busy general practitioner might have found it difficult to allot so much time to one individual yet it was surely worthwhile when a person's entire career and future were at stake.

Yet another practical advantage of medical examination on entry has been noted - by many colleagues in this work as by myself. One not infrequently encounters students who earlier in life have been unnecessarily alarmed about something in their physical condition. A cardiac neurosis and needless restriction of activity has been found with its origin in a remark about a 'weak heart' following some childhood illness; undue attention to menstrual discomfort may have fostered the habit of monthly invalidism. A great deal can be done here by explanation and reassurance, if necessary after proper investigation, and these students enabled to lead a healthy and vigorous life again.

Apart from imaginary or exaggerated ailments, there is amongst undergraduates a certain volume of ill health, minor in degree perhaps but nevertheless genuine. Some students will underrate or take for granted minor skin conditions, infected teeth or nasal sinuses, many of which respond readily to appropriate treatment. Early tuberculosis has always to be kept in mind when dealing with this susceptible age group.

It is well to have clearly in mind what is expected from/

from the medical examination of students at the time of entry into university. Disease or defect of which the student himself is ignorant will not be discovered in very many cases. University students are drawn mainly from the better-off sections of the community. They have been tended by school medical officers and family practitioners and are usually aware therefore of any physical disability from which they may suffer. In my own opinion, as far as the student is concerned, one of the main benefits of medical examination is the ten minute discussion which follows the actual examination. The medical officer now has before him his examination findings and has made some mental assessment of the character and disposition of the student he is dealing with. He is now in a position to offer friendly counsel and advice in a way open neither to an outside medical practitioner nor to any member of the teaching staff of the university. Where defect or ailment has been discovered advice can now be given as to what is required in the way of treatment or investigation, or where such can be obtained. Where the student has some known disability, he may be helped by information concerning local clinics etc. which he may require to attend. Advice may be required on many different topics, personal habits and hygiene, proper methods of study, the amount and type of recreation are to name but a few.

I attach the greatest value to this part of the examination. It gives me an opportunity to relate the person before me to his new environment as well as to his previous background and to assess the possible interaction of these two factors. It completes the examination and makes of it an assessment of a human being and not merely a series of noughts or crosses on a record form.

Finally there is an economic factor which should not be overlooked. In these days of increasing financial aid to students and with the State bearing an ever-growing proportion of the costs of university education, it is surely desirable that there be adequate provision for the physical welfare of students and that every means be adopted which will tend to promote their efficiency and lessen absenteeism from avoidable sickness. Medical examination is one measure directed to that end.

2. Compulsory or Voluntary Examination?

I quote again from the IAUPL "Report on Student Health Services" of 1950. "The question arises as to whether the medical examination of students should be obligatory or voluntary. We would hesitate to hasten unduly the adoption of measures which though desirable in themselves do not command the full assent of those to whom they may apply. We are, however, interested to note that the National Union of Students in Great Britain/

Britain have been among the strongest advocates of the institution of student health services in that country and that they advocate that the examinations should be obligatory. We ourselves hold that the case for obligatory medical examination has been made out."

"We are inclined to think that the university should see to it that provision is made for physical exercise by students generally, but that choice of exercise should be left freely to the individual."

And again from "The Lancet" of Dec., 27, 1947:-

"With the costs of illness covered, those who have to provide for the young will increasingly concentrate on earlier detection of defects and on the prevention of any form of disability; the success of child welfare centres and school medical services fully justifies extension of interest to the next age group. The university student is, after all, still in a stage of growth and development; like the youthful entrant to industry for whom special welfare measures are now required, he is exposed to new hazards on leaving home and school, and for medical students in particular these include exposure to tuberculosis and other infections. Furthermore, the undergraduate is at a stage of his educational career when the contribution of health to the evolution of the 'whole man' can be usefully emphasised and related to the general academic culture. Nowadays too many of those admitted to universities on the score of scholarship are found/

found to be of poor physique and liable to break down under the stress of a curriculum ill-adjusted in its mental and physical demands. Surely the time has come to recognise that the health of this large body of young and partially selected adults, from whose ranks will be drawn a high proportion of the leaders and teachers of the future, matters at least as much as the health of recruits to the armed forces. At British universities compulsory medical examination has never been suggested as a means of selection or exclusion; it takes place after entry and is intended to give the student a better prospect of enjoying and profiting by his scholastic course and of evading interruptions by sickness."

Dr. Bolton, of the Student Health Service of the University of Birmingham, was probably right in remarking that 'the native resentment against compulsion is, after all, something of a bogey.' Certainly in the Scottish universities the trend towards compulsion has been marked by no protest from the student community. Medical examination, Mantoux testing and chest radiography is obligatory for all medical students in Aberdeen University and for all students in Queen's University, Belfast. In University of Edinburgh chest X-ray is compulsory for all students.

It has been borne out by experience that when medical examination is on a voluntary basis the result tends to be disappointing. Edinburgh University reported/

reported 70 per cent of students reporting voluntarily for examination in 1946-47 and 63 per cent in 1949-50. In Glasgow the figure was 28 per cent for 1948-49 and for the same year in the University of Wales, 64 per cent. Cambridge reported an acceptance rate of 78 per cent in 1948-49 and 88 per cent in the following year but the residential and tutorial systems operating in that university may have had some effect on these figures.

Another argument in favour of compulsion is that when the student has freedom of choice, the ones who do appear for examination tend to be of the fit, athletic type, while the doubtful ones, possibly apprehensive of the findings, stay away. I think there is some truth in that argument.

Another point is that in a closed community like a university, while routine medical examination and chest X-ray are of benefit to those who make use of them, any public health value of these measures is destroyed if known or doubtful cases of tuberculosis can avoid supervision.

Furthermore, as pointed out by Professor Crew of Edinburgh, it is only on information from compulsory surveys that comparisons can be carried out. Dr. Parnell of Oxford endorsed that opinion and added "For study purposes and for the planning of health apparatus in general a fair sample then replaces one in which other and random methods of selection have/

have occurred." It is only when medical examination becomes everywhere obligatory that there will be forthcoming the answers to at least some of the problems that still exist in student health work.

A point of practical importance is that students will usually take the line of least resistance. Where medical examination has been made compulsory they accept it without demur; where the examination is on a voluntary basis other interests are given priority.

I should like to draw attention to the position as it obtains at present here in the University of St. Andrews. The Students' Representative Council had for long favoured the establishment of a health service within the university and in 1947-48 they prepared a questionnaire which was circulated to every student matriculating for that year. The following summarises the answers received to some of the questions.

Q.1. Are you in favour of a medical examination for every student at least once in each academic year?

Yes 1012 (93.7 per cent of those voting)

No 68 (6.3 " ")

Q.2. If 'YES', are you in favour of

(a) Compulsory medical examination for all students?

Yes 296 (28.6 per cent of those voting)

(b) Compulsory medical examination subject to contracting out on conscientious grounds or for other valid reasons?

Yes 487 (47 per cent of those voting)

(c) Voluntary medical examination?

Yes 250 (24.4 per cent of those voting)

Thus from a large and representative poll, 75 per cent of voters were in favour of compulsion in one form or another.

It is paradoxical yet, for reasons outlined above, understandable, that the decision to introduce medical examination here on a voluntary basis met with a relatively poor response from the students. Of the bejants (first year students) about half come forward each year for medical examination. The remaining number of examinations as shown in the annual reports given later, is accounted for by students from other years attending for the first time or for repeat examination. One point should be noted, however, in interpreting the figures given in these reports.

Any student in the university is entitled to make use of the health service for purposes of treatment. By doing so he indicates his consent to whatever examination the Medical Officer considers necessary. The result is that the number of students who are medically examined each year is considerably higher than the figure given in the annual report.

Despite the high proportion of students voting in favour of compulsory medical examination, the authorities in this university have so far insisted that medical examination, like chest radiography, shall be conducted on a voluntary basis. That was the ruling/

ruling given when I took over this appointment and I had no option but to accept it. I have since varied in my opinion as to the wisdom of the restriction.

From the outset it was obvious that if medical examination was to be carried out only on those students who volunteered for it, the health service was going to face certain difficulties, at least in this aspect of its activities. It is one thing for students to vote in favour of medical examination and quite another for them to attend for it once the facilities are available. Yearly there has been the same story - an initial rush of enthusiastic first year students and then a rapid decline in numbers as the various other activities of university life claimed their attention. During the rest of the academic year medical examination was carried out on several more senior students, coming either initially or for re-examination, or on those students whose initial requirement was treatment for some medical, surgical or other condition.

Later on, I came at least to appreciate the point of view of those authorities who stipulated that students must have freedom of choice with regard to attendance for medical examination. It has meant that students who make use of it do so from choice and not merely to comply with a university regulation. The doctor-patient relationship is a good one from the start and students are interested in the thoroughness of/

of the examination and their treatment as individual human beings rather than as statistical material.

Now, however, after a very careful consideration of the question, I incline to the view that medical examination including chest X-ray should be compulsory for all students on entry and thereafter at suitable intervals, say every two years, during their stay in the university. That there are pros and cons to the argument no one will deny and it is possible to argue a fair case either for compulsory or for voluntary attendance. But the experience of four years in this type of work suggests several reasons which to me sway the balance against allowing medical examination to remain a matter of individual choice. I enumerate but a few.

Firstly, medical examination and chest radiography lose in value as public health measures when conducted on a voluntary basis. One thinks chiefly of tuberculosis here: an adequate campaign demands freedom on the part of the health officer to examine any potential source of infection.

Secondly, in student health work there are many problems yet to be solved. The health service occupies a unique position in the university as regards acquiring information on socio-economic and other factors which may have a bearing on student welfare. Possible correlation between certain of these factors and the incidence/

incidence of disease and disability requires investigation. To yield the most trustworthy results, any such investigation should embrace the entire student community rather than a self-selecting sample of it.

There is yet another argument against allowing medical examination to be voluntary and it is an important one. When a health service aims at being a comprehensive one and, as in this university, makes provision for attendance and treatment during illness, the effect of leaving routine examination during health to the choice of the individual is to place an undue emphasis on disease and its treatment.

Students themselves seem to rate highly the facilities for treatment their health service offers. They have a doctor situated within the university precincts, available at regular hours throughout the day for consultation or for attendance on students who are ill in lodgings or in hostels. The university doctor has frequently certain privileges with regard to the use of local laboratory and X-ray facilities, to consultant advice and to the admission of his cases to hospital when necessary. He should be able therefore to offer a standard of medical care and attention somewhat outwith the scope of the average doctor in a busy, general practice. Added to this, the university doctor has, or should have, an effective liaison with members of the teaching staff - a point/

point sometimes of considerable value in dealing with the minor neuroses so frequently met with in present day undergraduates.

But the fact remains that the prime concern of a student health service should be health and not illness. It may be conceded that prompt and efficient medical attention to those in need of it is of the highest value and an essential part of the function of a student health service, but to make it the only function or even the principal function is to put the emphasis in the wrong place and to deny the health service its fullest scope and potential value.

Reference has been made to the argument that voluntary attendance for medical examination is more consistent with the freedom and liberty that should be the hall-mark of university tradition and custom and, on similar lines, that compulsory medical examination is bad for morale and may foster neurotic tendencies rather than prevent them. Neither of these factors seems to operate in industry or in the armed services. There is nothing to suggest that in these fields compulsory medical examination is either resented by the individual or found bad for his morale - possibly the reverse is nearer the truth. I repeat therefore, that after lengthy consideration, I have come to the view, as submitted to the university authorities in my report for 1951-52, that medical examination should be compulsory for all students. Should the unqualified/

unqualified recommendation prove unacceptable, then a compromise solution is still possible. That is for the University Court to frame a regulation such as that outlined below.

1. Each student, before entering upon any course of study within the University, must produce a medical certificate stating that he or she:-

(a) Is considered physically fit for the course of study chosen.

(b) Is free from communicable disease.

(c) Is free from any evidence of pulmonary tuberculosis as shown by a chest X-ray examination made within the past twelve months.

2. Each student throughout his or her course of study will attend at least once a year for interview with the University Medical Officer.

3. Each student throughout his or her course of study will attend annually for miniature radiography of the chest.

Such a regulation would involve neither excessive 'form filling' nor administrative difficulties. If I had to operate it, my first interview with a student would occupy some ten or fifteen minutes. That would allow me to record details of past medical history, present habits, family and socio-economic circumstances. At that stage, advice might conveniently be given as regards treatment required for any known disability, concerning/

concerning National Health Service arrangements or local clinics and similar facilities. It would then be in the option of each student to proceed to full medical examination and those wishing to do so would be asked to attend for it at their own convenience at some time subsequently during the current academic year.

Such a system would, I think, be acceptable to all concerned. The Medical Officer would at least see every student once a year; a short medical record could be maintained and appropriate advice given when required. The student, on the other hand, would be free to opt for or against medical examination. I think objectors to such a system would form a fairly small minority. As is widely known, changes of far reaching importance are impending within this university. A regulation such as I have outlined might well be one of them.

3. Medical Records.

The years immediately following the last war saw a sudden increase in the number of new student health services and an expansion of the function and scope of existing ones. Concurrently with this development arose appreciation of the fact that if the material being collected was to be put to the fullest use, individual methods of recording examination findings would have to yield to some standard/

| SURNAME (Block Letters) | | FIRST NAMES (Block Letters) | | Job No. | AGE | SEX | CIVIL STATE | NAT. SERVICE | REFERENCE NUMBERS | | | |
|--------------------------------------------|--|------------------------------|--|----------------------------------------|-----|--------------------|--------------------------------------------------|------------------------------------|-------------------|----------------|-------------------------------------------------------------------------------------------------------------------|-------|
| | | | | 1 2 | 3 4 | Male 1 Female 2 | Single 1 Married 2 Widowed 3 Divorced 4 | Nil 1 Completed 2 Deferred 3 | 8 | 9 | 10 | 11 12 |
| NATIONALITY | | DATE OF BIRTH 13-14 15-16 | | DATE OF INTERVIEW 17-18 19-20 21-22 | | FACULTY | | | CODE 23 | | SCHOOL | |
| RACE | | | | | | DEPARTMENT | | | | | Day only 0 Boarding 1 Primary 2 Private 3 Secondary 4 Public 5 6 7 8 Other (specify) 9 | |
| ADDRESS | | | | SCHOOLS | | | | | | | | |
| | | | | JUNIOR | | SENIOR | | | | | | |
| NAME AND ADDRESS OF HOME DOCTOR (Vacation) | | | | | | | | | | | | |
| (Term) | | | | FROM TO | | FROM TO | | | | CARD NUMBER 25 | | |

PREVIOUS MEDICAL HISTORY

| | | | | | | | | | |
|-----------------------|--|---------------------------|--|-------------------------|--|-----------------------|--|-------------------------|--|
| FEVERS 26 | | E.N.T. 28 | | PERIODIC SICKNESS 30 | | TUBERCULOSIS 1 32 | | FAINTING 0 24 | |
| Mumps 0 | | Otorrhoea Ext. Otitis 0 | | Headaches 1 | | ENLARGED GLANDS 2 | | FITS 1 | |
| Measles 1 | | Otitis Media 1 | | Cyclic Vomiting 2 | | PREVIOUS CHEST X-RAY | | NERVOUS DIFFICULTY OR | |
| Rubella 2 | | Deafness One Ear Slight 2 | | Acidosis 3 | | Satisfactory 3 | | BREAKDOWN 2 | |
| Chickenpox 3 | | Handicap 3 | | Abd Pain 4 | | Abnormal 4 | | NEUROLOGICAL 3 | |
| Whooping Cough 4 | | Both Ears Slight 4 | | Diarrhoea 5 | | PREVIOUS MANTOUX TEST | | EYE LESION 4 | |
| Scarlet Fever 5 | | Handicap 5 | | Recurrent Indigestion 6 | | Positive 5 | | COLOUR VISION | |
| Diphtheria 6 | | Frequent Colds, Catarrh 6 | | | | Negative 6 | | ABNORMAL 5 | |
| Jaundice 7 | | Sinusitis 7 | | SKIN CONDITIONS 31 | | ANAEMIA 0 33 | | INJURY. Concussion 0 35 | |
| Tropical 8 | | Tonsillitis, Quinsy 8 | | Eczema 1 | | NEPHRITIS 1 | | Fractures 1 | |
| Other Fevers 9 | | | | Urticaria 2 | | PYELO-CYSTITIS 2 | | Sprain 2 | |
| PREVIOUS INOCULATIONS | | RESPIRATORY 29 | | | | PILES 3 | | Other 3 | |
| Diphtheria 1 27 | | Pneumonia 1 | | | | V.D. 4 | | OPERATION | |
| Scarlet Fever 2 | | Pleurisy 2 | | | | AC. RHEUMATISM CHOREA | | Appendicectomy 4 | |
| Typhoid 3 | | Asthma 3 | | | | (St. Vitus Dance) 5 | | Tonsillectomy 5 | |
| Vac. 4 | | Bronchitis 4 | | | | WEAK HEART 6 | | Adenoidectomy 6 | |
| Other 5 | | Haemoptysis 5 | | | | | | Mastoidectomy 7 | |
| | | Hay Fever 6 | | | | | | Herniotomy 8 | |
| | | | | | | | | Other Surg. Operation 9 | |

FAMILY MEDICAL HISTORY

Alive/Dead

Age

FATHER'S OCCUPATION

Father

Mother

Brothers

Sisters

Gastric Ulcer

Duodenal Ulcer

Peptic Ulcer, type uncertain

Asthma

Migraine

Eczema

Urticaria

Hay Fever

Gout

Diabetes

Cancer

Father

Mother

Brothers

Sisters

Grandparents

Uncles and Aunts

First Cousins

Wife

Children

A

0

1

2

3

4

5

6

7

8

9

Tuberculosis, Pulmonary

Tuberculosis Glands

Tuberculosis, Other

Heart Attack

High Blood Pressure

Nervous difficulty

Epilepsy

Mental Breakdown

Anaemia

Colour Vision

Other Family Tendency

FATHER'S R.G.

GROUPING

POSITION OF STUDENT IN FAMILY

NUMBER OF SIBLINGS

FUNCTIONAL HISTORY

MENSTRUAL HISTORY

MENSTRUAL HISTORY (cont.)

HABITS

LIVING CONDITIONS AT UNIVERSITY (cont.)

SLEEP

Sound

More than 1 hr. in getting off

Interrupted

Bad Dreams

Hypnotic

APPETITE

Normal

Poor

Unsatisfied

BOWELS

Normal

More than 1 per day

1 per day

1 in 2 days

Less often

Constipated

Diarrhoea

Variable

DIGESTION

Normal

Abnormal

MICTURITION

Normal

Nocturnal enuresis

Other abnormalities

MENARCHE

9 years

10 years

11 years

12 years

13 years

14 years

15 years

16 years

17 years

18 years

DURATION

1 day

2 days

3 days

4 days

5 days

6 days

7 days

8 days

Over 8 days

REGULARITY

Regular

Irregular

PAIN

Nil

Slight

Moderate

Severe

Variable

FREQUENCY

Less than 21

21 to 25

26 to 30

31 to 35

36 to 45

More than 45

DISCHARGE

Absent

Slight White

Excessive

TAMPON

Internal

External

TOBACCO (CIGARETTES)

Nil

Slight (0-10 per day)

Moderate (10-20 per day)

Heavy (over 20 per day)

TOBACCO (PIPE)

Nil

Slight (2 oz. per week)

Moderate (2-4 oz. per week)

Heavy (over 4 oz. per week)

ALCOHOL

Nil

Occasional

Regular

LIVING CONDITIONS AT UNIVERSITY

OUTDOOR RECREATION

(Physician's Opinion)

Sufficient

Insufficient

OTHER RECREATION

(Physician's Opinion)

Sufficient

Insufficient

SWIM 50 YARDS

Yes

No

DIVE

Yes

No

LIVING CONDITIONS

Home

Hostel or College

Lodgings

Other

Halls of residence

WEEKLY EXPENDITURE MEALS AND LODGINGS

Under 50s.

50s. to 60s.

60s. to 70s.

70s. to 80s.

80s. to 90s.

Over 90s.

DAILY TRAVEL

Under 1 hr. return

Over 1 hr. return

WEEKLY FARES

Under 5s.

5s. to 15s.

Over 15s.

standard procedure. Such would allow comparisons to be made between different universities and might also permit deductions which would not be justifiable if these universities were given complete freedom of choice as regards their method of recording examination findings. The application of modern research methods to student health problems in general, would be facilitated by a standard method of recording examination findings and the regular submission of these findings to some central bureau or institute for analysis.

In the Nuffield Institute of Social Medicine at Oxford, the latter requirement was already in existence. Under the chairmanship of Dr. Parnell, the senior medical officer there, a small committee undertook the task of designing a standard record form. They produced what has come to be known as the 'Oxford' record form. A copy of it, as recently redesigned, is shown opposite. It has been adopted by a majority of the universities which maintain a full-time student health service.

Not even its authors would claim perfection for this record form and certain modifications now suggest themselves, but in the main it is a useful document which up to now has served its purpose very well. The form is tabulated and codified for easy reduction to a 'punch card' system for subsequent analysis.

Page 1. in addition to details of name, age, civil state etc., permits easy record of

(a) previous medical history.

(b)/

- (b) family medical history.
- (c) functional history, present habits and economic circumstances.

These points could be noted in a short 10-15 minute interview and in an earlier section the view was put forward that such interview might well be compulsory for every student on entry into the university. At such initial interview, advice could be given on any known disability and the facilities available for its treatment. It should be possible at this stage to make a general assessment of a student's character and personality and if the matter were approached correctly, I imagine few students would object to proceeding from interview to full medical examination.

In this university there is no distinction between interview and examination and neither is compulsory. Students may make use of the health service for routine medical examination, in which case there are no reservations as to what is to be carried out, or they can attend at any time for purposes of medical advice or treatment.

Students attending for medical examination are first seen by the nurse-secretary of the department, who enters details of their name, age and past medical history. Height and weight are recorded and also certain measurements in which I am interested. The urine is examined and the blood haemoglobin estimated. All that information is before me when I first see the student.

Anything of note in the previous medical history is first discussed. I myself complete the record of family history, functional history, present habits and living conditions and then proceed to a general medical examination. When that has been completed and the student dressed again, we sit down to a short discussion of the findings and a general 'appreciation of the situation'.

The whole examination and interview requires something like 40-45 minutes. Discovery of any abnormality requiring advice or discussion may add another 15-20 minutes. These figures are in line with experience elsewhere (Parnell, Lancet, 29 Dec.47). Dental examination, Mantoux testing and chest X-rays are still required but these are carried out at separate sessions.

The remaining points to be noted on page 1. of the 'Oxford' form call for little comment. Some points could have been omitted - it is not very important to know that a student has had German measles in the past and aquatic prowess is of interest to the student himself rather than to the medical examiner. Space might more usefully have been devoted to past visual history and the use of glasses. The physician's opinion as to the adequacy of outdoor recreation sometimes requires rather careful questioning.

(1) On/ During the first three years of my work here, every student attending voluntarily

On this latter point, some of my colleagues in other Scottish universities have commented on the comparatively low number of students who take sufficient physical exercise. That has not been my finding in this side of St. Andrews University. It is true that only about one-third of the total students take out membership of the Athletic Union but I find that many of the others engage regularly in sport or athletics, often with some school or church connection, and in my opinion most of our students obtain an adequate amount of physical exercise.

Turning to page 2. of the record form, this is for recording the findings at medical examination and follows a fairly well defined pattern. It allows for two re-examinations during the student's career at university. This page is not duplicated in the 'transcript' of the form that is sent for analysis.

Page 3. allows a miscellany of information to be recorded. The first part is devoted to various measurements - height, weight, blood pressure, pulse rate, auditory and visual acuity, and allows comparison of the findings at successive examinations. Dental history and condition are recorded here and also the results of examination of the urine. Some other points on this page are of interest and require more detailed consideration.

(1) Chest X-ray. During the first three years of my work here, every student attending voluntarily for/

for medical examination, whether at a first appearance or during subsequent years of study, was sent for large film, X-ray examination of the chest. Results are shown in the annual reports presented later. During 1951-52 this part of the examination had to be omitted as there was an acute shortage of films throughout the Eastern Region and I was asked to restrict large film radiography to students for whom it seemed advisable on clinical grounds. Every student, however, was given an appointment to attend a Mass Miniature Radiography session. The Oxford record form permits the two forms of X-ray examination to be recorded separately.

(ii) PULHEEMS Profile. At the time this system of medical classification was brought into general use in the armed forces, I was serving as a regular officer of the Indian Medical Service and had the opportunity of acquiring some first-hand experience of the method. The system and its application to Service personnel are fully described by Fletcher (B.M.J., 15 Jan. 1949). From the Services' point of view, the system used throughout the greater part of the war, of classifying physical ability on a series of letters A, B, C etc. with numerical sub-groups, had proved something of a failure. The medical categories so defined did not adequately describe a man's physical or mental limitations, they gave no indication of mental and emotional attributes, which in total war are no less important/

important than physical ones, and they merely indicated, in very general terms, restrictions on employability without defining any particular disability. In 1943, the Canadian Army authorities introduced a new system of classification known as 'PULHEEMS', chief credit for which goes to General Brock-Chisholm, then Director-General of the Canadian Army Medical Service. It was he who first suggested that men should be examined and classified in respect of seven sub-divisions of bodily and mental functions. A committee appointed to investigate the possibilities of such a scheme designed the PULHEEMS system, first used by the Canadian Army and later accepted by all our own armed services as well as by the Ministry of Labour and National Service.

The system is now widely known and requires no detailed description. It is undoubtedly an advance on any system based on physical standards, and emphasises not individual disabilities but a man's total functional capacity. As far as the Services are concerned, the value of this system lies partly in its easy adaptability to administrative requirements. On the basis of the Pulheems classification, each person is graded in respect of seven attributes of bodily and mental function. The whole 'profile' can be reduced to a two-letter code for use as an employment standard. There are seven variations of the two-letter code. Each defines/

defines a man's employability and for each variation, minimum standards in the 'profile' are laid down. Thus FE means employable on full combatant duties in any area in any part of the world (FE - forward everywhere) and for the infantry soldier requires a minimum grading in the various sub-divisions of P2, U2, L2, H2, E8/3, E8/3, M2, S2. The method therefore has obvious advantages for use in the Services.

I have not, however, found the classification of much value when applied to university students. There is no difficulty in completing the 'profile' - having examined a student it is the work of a moment to record his grading under the Pulheem system, but I have never been able to make any use of the information. In my examination I am not concerned greatly with a person's employability under active service conditions but with his efficiency as a university student. Such efficiency is compatible with a very low grading in any of the attributes P, U, L, H or EE. The fact that a person is a university student means that ipso facto he gains the highest grading in M (mental capacity) and only S (emotional stability) seems to have much bearing on the question.

A system on the lines of the Pulheems classification but designed specifically for application to university students, would be very desirable but would involve taking account of academic ability, character, intelligence and many other factors. We are yet a long way/

On page 3, of the record form, the examining physician is asked for an assessment of the student's personality and an estimate of his performance. The Oxford form remedies the deficiency to some extent by providing space for the examining physician's assessment of personality and performance.

(iii) Economic, Awards etc. Income Head of Household.

A university can probably ascertain through its ordinary, administrative channels the proportion of students in receipt of some form of assistance from State, school or other sources. I have been struck by the high proportion in this university who qualify for grants of one kind or another. It is at present in the region of seventy to eighty per cent of all students. I am in full agreement with the policy that no one should be denied a university education for lack of means but there are other considerations too and it seems to me that the present system of awarding grants from public funds operates without much discrimination as regards the type of applicant.

It is of assistance to the medical officer, however, to know something of the economic circumstances of the student he is examining and I agree with the inclusion of this item in the record form. I personally never inquire from any student the income of his parents. That does not strike me as the concern of a medical officer; it is enough to note the father's occupation.

(iv) Personality Assessment. Assessment of Performance.

On/

On page 3. of the record form, the examining physician is asked for an assessment of the student's personality and an estimate of future academic, athletic and other performance. This part is normally completed after medical examination has been carried out and the findings discussed with the student. This is largely 'opinion evidence', the physician being influenced by subjective considerations as well as by objective findings.

It is an interesting part of the examination to make finally this assessment of the student's personality and likely performance at university. Its practical value is less evident but it offers scope for interesting research. "What type of student may 'crack' under the strain of repeated, competitive examinations?" "What is the interplay between physical efficiency, mental ability and character that produces the successful student?" These are questions yet to be answered but the student health service has a part to play in studying them.

The accuracy of one's assessments can only be tested by comparing them over the years with the student's actual performance and with his teachers' assessment of him. That involves liaison between medical officer and members of the teaching staff, but the material is there for a very interesting study that might in time produce valuable results.

I have now devoted sufficient space to methods of/

of recording examination findings. I find the Oxford form a valuable and useful record. I maintain a copy for every student who makes use in any way of the health service and record whatever information is available to me. Perhaps first acquaintance with the form tends to create the impression that students exist chiefly to supply material for a medico-sociological investigation. The form makes no provision for medical 'returns' as opposed to medical 'records', for noting how frequently medical attention is required or for what types of illness. Medical examination is an important part of student health work and findings must be accurately recorded. The care and treatment of students during illness is another and equally important function of a student health service.

4. Examination Methods.

There are certain administrative difficulties in arranging the medical examination of a large number of students every year. There is no parallel with work in schools where a representative selection of children is chosen from different areas in rotation and the work spread over the greater part of the year. Also, unlike the steady intake of recruits into industry or the armed services, new entrants to a university, amounting to some hundreds each year, all arrive together on the same day.

It is desirable that medical examination be made as early as possible during the student's academic/



academic career, before studies and other activities make too pressing demands on his time. In my own university, where medical examination is still on a voluntary basis, all the First Year volunteers can easily be dealt with during the first term of the academic year. In the remaining two terms, all re-examinations are carried out and opportunity taken to examine fully certain students whose first attendance was in connection with treatment for some illness or disability. In an earlier section I mentioned the possibility of making a short interview the first part of the examination, leaving the student free to arrange an appointment to have the rest of the examination carried out later in the academic year at his own convenience. Other universities have devised their own expedients some of which are mentioned below.

There is no doubt that full medical examination should consist of exactly what the term expresses. The method of choice is for each student to make his own appointment and attend for examination in complete privacy by the medical officer or one of his assistants. No other method allows the physician adequately to assess character and personality or can establish the rapport between himself and student which is the ideal to be aimed at. Most medical officers agree that a complete medical examination of this nature occupies some forty-five minutes to an hour. On this basis,

Parnell/



Parnell suggests that a maximum of 20 patients a week can be seen as a regular procedure, the number of one-hour examinations in a year being limited to 450 where there are three eight-week terms. On this basis, he goes on to state, the annual entry which could be handled by one doctor would be about 150, perhaps up to 250 where university terms are longer than eight weeks.

Some allowance must be made for the fact that in many universities, medical officers are also responsible for the care of students during illness. Nearly all these universities relate the same experience that this particular activity tends to 'snowball' rapidly and ultimately to become the most onerous part of the medical officer's duties. Without going into unnecessary detail on the subject, I am inclined to support the figure given by several universities in the United States, that one full-time medical officer per one thousand students is a reasonable working ratio.

It is a reasonable average in the American universities, some of which cater for over 30,000 students, but in the smaller universities of our own country, I would submit one thousand students is probably the maximum number that can be dealt with by one medical officer, if medical attendance on sick students is part of his duties as well as medical examination and normal administrative routine.

Some/

Some universities in this country, finding one hour per student an impossible standard, have tried the assembly-line system of examination. In this system, which has been used extensively by the medical services of the armed forces, a team of doctors is engaged, each one responsible for a particular bit of the examination. Large numbers can be examined in a comparatively short time by this method and examination can be very efficient and thorough. But it lacks a personal touch and denies both physician and student the opportunity for friendly discussion which to me is a very desirable feature of student health work.

A modification of this method was given a trial in the University of Birmingham (Medical Officer's Report, 1949-50). There, medical students were used as part of the team and recorded details of height, weight, pulse rate, medical history etc., so that students being examined reached the medical officer with these findings already recorded. This meant a considerable saving of time for the medical officer who had only to complete the examination and make a final assessment of each student. In such a method, a dental surgeon can usefully be employed as a member of the team.

A method of this nature can be regarded at least as/ of physical or mental observation being it desirable that he or she be reviewed by the supervising medical officer.

as a useful, preliminary 'screening' of students and doubtful cases can be recalled for more detailed investigation. In Birmingham, using this method, 16 per cent of students were in fact recalled. By this method, 678 new students were examined in thirty hours during the first week of term, the average amount of student time occupied being some fifty minutes. The medical officer of the university admits the method lacks a personal touch and gives little opportunity for a careful assessment of character and personality, but on the other it allowed all new students to be seen early in the academic year and at the same time introduced them to the student health service.

Liverpool University, in the first year of running a student health service, introduced yet another system (Student Health Committee Report, 1951). On being accepted for the university, each student is required to submit certain information concerning past illness and present state of health. In addition, he must produce a medical report from his family doctor who has also to classify the student into one of three categories. These are:-

1. In good health and free from any physical or mental defect.
2. With minor or stationary defect unlikely to be affected by the university career.
3. Of physical or mental condition making it desirable that he or she be reviewed by the university medical officer.

These reports are scrutinised by the university medical officer. All students in the third category are examined in the early weeks of term; any other student for whom review seems desirable may also be asked to attend.

The submission of this medical report by each student on entry into the university is compulsory. In the first year the system was operated, with seven hundred and twenty new entrants, no fewer than fifty doctors pointed out defects in students which they thought required the attention of the university medical officer. In Liverpool, for the remainder of a student's career, the university doctor retains general medical charge but domiciliary visiting is left to private practitioners. Mass radiography is conducted every academic year and for this also, attendance is compulsory for every student.

The Liverpool system has much to commend it and seems admirably adapted to the needs of a university most of whose students are domiciled in the vicinity. Clearly, there can be no standard procedure for medical examination; each university must devise the one best suited to its own needs.

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University authorities and teachers will rightly look to their student health services to supply some of the answers to these problems. I mentioned earlier that research is one of the three fundamental functions

Section 4.

The Function of a Student Health Service.

(2) Research.

.....

In Scotland, the student population at universities is 16,000, at full-time central institutions 6,000 and at teaching colleges 4,200, giving a total of 26,200. The annual intake of students at these three places is 4,000, 2,400 and 2,400 respectively - a total of 8,800. Measured by population figures alone, these may represent only a small unit in the community but it is an important one. These youths and girls are selected products of our present school system and from them our future leaders are most likely to be drawn.

As certain sections of industry have presented problems in both clinical and preventive medicine, so too, as is being increasingly realised, this student section of the community has its own problems, many of them yet to be solved. There are occupational strains and stresses associated with a student's work as with the miner's; they are of a different nature but just as real.

University authorities and teachers will rightly look to their student health services to supply some of the answers to these problems. I mentioned earlier that research is one of the three fundamental functions of/

of a student health service. There are, however, several schools of thought as to the degree of priority to be given this particular function.

One school, perhaps well represented among the designers of the 'Oxford' type record form, would have research as the all-important function of a student health service. This school seems to take the view - "There are certain problems to be solved; to solve them a mass of factual information is required; to get that information students must be medically examined; the more students we examine the more accurate will be our figures and also the deductions that can be drawn from them."

I, personally, prefer the view of a second school that regards medical examination as a means of supplying the examiner with certain information about an individual. Two people benefit thereby. The physician learns something about a person in health which is of value should that person subsequently require treatment by him in illness; the person gains an assurance of health or advice as how to achieve it.

To the first school of thought, medical examination and research go hand-in-hand; to the second, medical examination is associated with the care of an individual. Adherents of the first school see the problems and then seek the figures necessary for their controlled investigation; those of the second school see a collection of human beings - in studying them in health and/

CLASSIFIED FINDINGS IN 155 STUDENTS

| Condition | No. of Male students | No. of Female students | Total |
|------------------------------------------------|-------------------------|---------------------------|----------|
| Eye: | | | |
| Myopia | 27 | 24 | 51 (33%) |
| Astigmatism | 10 | 10 | 20 (13%) |
| Hypermetropia | 3 | 5 | 8 (5%) |
| Strabismus | 3 | 3 | 6 (4%) |
| Other eye conditions | 2 | 4 | 6 (4%) |
| No. of students | 43 | 42 | .. |
| Skin | 25 | 24 | 49 (32%) |
| Spinal (scoliosis, kyphosis, lordosis) | 21 | 22 | 43 (28%) |
| Surgical | 22 | 14 | 36 (23%) |
| Ear, nose and throat | 14 | 9 | 23 (15%) |
| Gastro-intestinal | 10 | 9 | 19 (12%) |
| Minor anxieties | 9 | 11 | 20 (13%) |
| Systolic murmur | 6 | 6 | 12 (8%) |
| Condition requiring general advice | 2 | 6 | 8 (5%) |
| Sundry other medical conditions | 18 | 20 | 38 (24%) |
| Dysmenorrhoea: | | | |
| Mild | | 16 | 16 (21%) |
| Moderate | | 6 | 6 (8%) |
| Chilblains | 5 | 9 | 14 (9%) |
| Dental conditions requiring treatment | 6 | 7 | 13 (9%) |
| No. of abnormalities | 183 | 205 | 388 |
| No. of students | 77 | 78 | 155 |
| Average number of abnormalities per student | 2.4 | 2.6 | 2.5 |

and sickness they become aware of certain problems and work towards a solution of them. Perhaps the knowledge that he must care for his students in illness as well as examine them in health, colours a medical officer's point of view on this question.

But the fact remains that there are certain problems in this work, and for their elucidation information on several points is required. Some of these points are considered below.

(1) Morbidity Incidence in Students.

An early pilot survey was carried out in Oxford University by Parnell (The Lancet, 940, 1947). 155 students volunteered for examination, 77 from Magdalen, 78 from Somerville. These figures represent 60 per cent of 1st Year men and 66 per cent of 1st Year women who were invited to attend for examination. The findings in that survey are shown in the Table facing this page. They are included here, partly from their own interest, partly as indicating what information a survey of this nature may yield.

In that investigation, 2.5 is given as the average number of abnormalities found per student. At first sight, that seems a high figure to find in a group which might reasonably be expected to be among the healthier in the community. It should not be taken at more than its face value. Mild dysmenorrhoea, minor anxiety states and chilblains are included, conditions commonly met with in any section of the community. My own/

own finding is that a medical examination lasting almost one hour is almost certain to reveal abnormality even in a young man who might gain the highest Pulheems rating and be passed fit for front line service in any part of the world.

There is no need to dwell unduly on this particular point. Medical officers devote considerable space in their annual reports to the findings at routine medical examination of students; the incidence of morbidity reported varies in different universities and in the same university from year to year. In my own annual reports in the second part of this thesis, some figures on this subject are given. I have not yet collated the findings over four years in one comprehensive analysis. My interest has been less in classifying abnormality than in discovering it and undertaking or arranging the necessary treatment.

2. Causes of Examination Failure.

Here is a subject of very great interest which lies partly at least in the field of student health work. Why is it that from time to time a student who has done brilliantly in class work will fail completely in degree or professional examinations? What factors at work when a student of excellent school record achieves the lowest pass standard only at university? Can we assess any factors which may explain the break-down of some students of apparently excellent promise?

This/

This subject falls to be considered against the wider background of mental health discussed in a later section, but there are one or two noteworthy points on the narrower issues of examination failure and its causes.

When Pemberton (British Med. Jour. 1948, 490) stated he found 15.4 per cent of his 407 students to be suffering from anxiety states, a correspondent (ibid. 663) enquired whether "fear of ploughing an examination" was to be considered abnormal. To me, the answer would seem to depend on the degree of fear and on this point Pemberton does not enlighten us. I should say it has reached abnormal proportions when, as has happened five times in my experience, a student needs medical attention either to get him into an examination or enable him to complete one.

But there must be underlying factors when fear of failure can reach such proportions. Mental inadequacy may be one, a man forcing himself beyond the limit of his mental powers. I think that is a factor in some cases. In the years immediately following the war, State financial assistance was generously given and a university education placed within reach of a wide circle of people not all of whom were able to make the best use of it or to justify it. Pemberton drew attention to the sinister association, noted repeatedly in one's own experience, between examination failure and loss of grants, National Service call-up and the end/

end of a university career. These are modern developments which may become more prominent if entry into universities becomes increasingly competitive and some form of State aid almost guaranteed to those who are successful.

I notice two of my colleagues, in recent annual reports, stressing another factor which must cause present day students to attach undue importance to examination results. That is the parting warning from their schoolmasters on the lines of "now do well at university and maintain the school's fine record." Anxiety on the part of these students is readily understandable if they are treated to similar exhortations from many of their university teachers.

No discussion of this subject would be complete without reference to a very excellent paper read by Mr. C. R. Henn at the Conference on student health held at Cambridge in 1951 (also Brit. Med. Jour. 25 Aug. 1951). I wish it were possible to devote adequate space to it here instead of merely to summarise its conclusions. As Senior Tutor of St. Catherine's College, Cambridge, Mr. Henn has sole responsibility for the selection and admission of students to that college. As such, his views are worthy of consideration. I recommended a study of them to some of my academic colleagues. Henn finds three primary causes of examination failure; 1./

As factors is important. I should like to mention briefly my own views on each with a word on the part

they

1. An incapacity to work in an effective sense.
2. Insufficient work through dispersal of interest and energy.
3. Failure through some form of what may be loosely termed 'breakdown' either before or during the examination.

It is the third of these causes which lies partly in the province of the medical officer and to which I should like to devote further attention.

Henn states that with regard to each case of a 'breakdown', one or more of the following factors will probably be found.

- (a) Acute anxiety about the examination result.
- (b) Insecurity in the family constellation, leading to a wider sense of social insecurity at the university. Factors in this may be divorced parents, an unbalanced upbringing through the death of one parent, an unduly dominating parent and so forth.
- (c) Sexual infantilism in some form, often associated with (b).
- (d) Failure to adjust to the highly complex and conflicting claims at the university.
- (e) A history of 'invalidism' in adolescence, for example, a long succession of minor ailments.

That is a fairly comprehensive list yet each of these factors is important. I should like to mention briefly my own views on each with a word on the part the/

the medical officer can expect to play in dealing with it.

Acute Anxiety. It is possible but unlikely that a university medical officer will find a student coming to him with the complaint that he or she is worried about performance in an examination or about the result of the examination. But it is common experience, particularly towards the end of term or of the academic year, to have students coming with a complaint of this, that or the other thing, when the real trouble that brought them is worry or anxiety about examinations. Recently, in a student of mine, 'vaginal discharge' was the complaint. It took one or two visits to find out that examination fear was the real trouble.

I have Routine medical examination of students does not deal with this problem, except in so far as it may disclose the potential worrier and give the doctor the chance of keeping an eye on him. Medical attendance on students does help to deal with the problem. If a friendly relationship has been established, it is not unlikely that a student will turn to the doctor rather than to his teachers should ever examination dread make him feel the need for advice and sympathy. The doctor is a university official, he too has been through the mill of examinations, he may be able to offer advice or other therapy and there is no loss of self-respect in telling him the story. That seems to be the point of view with the result the doctor is often made/

made the confidant. There is insufficient space to elaborate the theme. But experience teaches one to keep in mind the possibility of examination fear or worry as the real trouble, when the clinical findings are at variance with the student's story. It is an interesting part of a medical officer's work and one that often pays dividends.

Family Insecurity. In this case, routine medical examination can be of value. Most medical officers include in their examination, some inquiry into the student's family background and difficulties there may be apparent at even the first interview. Such a student frequently needs advice or guidance from someone and the medical officer may be able to help. I have met students who have come of their own accord to ask advice in some matter. I have also had some referred to me by local practitioners who apparently felt a student patient might fare better at the hands of someone who owed no professional obligations to the parents.

Sexual Infantilism. This factor may be apparent at a routine medical examination though a longer period of observation might be required in order to assess the psychological effect of it on the student concerned.

Invalidism in Adolescence. Here again, routine medical examination can be of value and the medical history, either/

either by itself, or combined with the student's attitude to it, may be enough to suggest a stormy academic future. Several students known to me here have done extraordinarily well despite very grave physical handicaps. More difficult are those students who will resort to invalidism as a refuge from almost any problem. Yet some of these are young people of decided ability and they deserve, and often heed, help and encouragement. A student's character is not finally formed when he arrives at a university; teachers and, perhaps, the physician can still play a part in shaping it.

Henn based his conclusions on a study of students carefully selected for one college in Cambridge. Brinton (St. Mary's Hospital), analysing the causes of academic failure in a group of 126 medical students, concluded that the outstanding causes were poor selection, poor capacity for work, low academic ability. Contributory factors (listed below in percentages) he gave as follows.

| | | | | | | |
|----------------------------------------------------|-----|-----|-----|-----|-----|----|
| Domestic trouble | ... | ... | ... | ... | ... | 21 |
| Truancy | ... | ... | ... | ... | ... | 19 |
| Extra curricular activities | ... | ... | ... | ... | ... | 18 |
| Financial hardship | ... | ... | ... | ... | ... | 11 |
| Past or family history of psychological disability | ... | ... | ... | ... | ... | 7 |
| Affaires de coeur and marriage | ... | ... | ... | ... | ... | 5 |
| Illness interfering with studies | ... | ... | ... | ... | ... | 4 |
| Outside interests | ... | ... | ... | ... | ... | 3 |
| Repugnance at medicine as a career | ... | ... | ... | ... | ... | 2 |
| Long daily journeys | ... | ... | ... | ... | ... | 2 |
| Frivolous excuses | ... | ... | ... | ... | ... | 2 |
| Too much money | ... | ... | ... | ... | ... | 2 |

I do not wish to dwell too long on this subject; possibly the key to it lies in words used in an earlier sentence "teachers and Physician", any solution will require their joint efforts.

I quoted above from a paper by Henn. I had the pleasure of meeting the author at a recent conference in London and enjoyed a lengthy and interesting chat with him on this subject. He readily admitted the value of the collegiate system in his own university, whereby one man has sole responsibility for the selection of students. It depends on the man, of course, but there was no doubt as to the wisdom of the choice in this case. His attitude to his students was that of any good commanding officer - "to get the best out of your men, know each one thoroughly."

We in Scotland are denied the advantages of the collegiate system. St. Andrews is the only Scottish university to have anything resembling it, but with the exception of the small St. Mary's College, units are large and heterogeneous, colleges in name only. On this question of academic failure, as long as we lack any satisfactory method of selecting students, the answer, as I see it, can only lie in co-operation between teachers, physicians and such people as hostel wardens and others who are in daily contact with students. We have had some notable successes here where members of the teaching staff and the health service have combined their efforts to 'nurse' a student through a difficult phase. We have had some/

some failures too! The medical officer certainly has a part to play. There is yet much to be done and much to learn with regard to the causes of examination failure. It is an interesting field for further research.

3. Socio-Economic Factors and Academic Performance.

Here is another subject offering scope for research. Several useful and interesting studies by university medical officers have already been published in their annual reports or in medical journals.

These include "The Health of 407 New Students" (Pemberton, Sheffield 1948); "Mentality and Prolonged Illness among Oxford Undergraduates" (Parnell, Oxford 1951) and several others.

Every annual report by a university medical officer makes some contribution, however small, to the wider understanding of student health problems. If these reports could be studied and their figures analysed at some central institute, certain facts would be set against a national instead of a local background. In recent years the Nuffield Institute of Social Medicine in Oxford has been undertaking this work. The recently formed Association of University Medical Officers also aims at conducting research over the whole field of student health.

My own annual report for 1951-52 includes the result of a small pilot survey undertaken that year. In the month of June 1952, a questionnaire was sent to/

Table 1. (contd).

| | Medical & Dental men | Science & Eng. Men | All Facults. Women | Total |
|--------------|-------------------------|-----------------------|-----------------------|-------|
| Daily Cigs. | 1 | 1 | - | 2 |
| Over 20 | 1% | 1.5% | - | 1% |
| Receiving | 71 | 46 | 24 | 141 |
| Economic Aid | 79% | 75% | 60% | 74% |
| No Aid | 19 | 15 | 16 | 50 |
| | 21% | 25% | 40% | 26% |

Table 2.

Attendance at Hospital, Doctor etc. National Service.

| | | | | |
|-------------------|-----|-----|-------|-----|
| Attended | 15 | 13 | 3 | 31 |
| Oculist | 17% | 21% | 7.5% | 16% |
| 1. For glasses | | | | |
| 2. For check | 6 | 2 | 5 | 13 |
| | 7% | 3% | 12.5% | 7% |
| 3. Did not attend | 69 | 46 | 32 | 147 |
| | 76% | 76% | 80% | 77% |
| Hospital as | 3 | 3 | 2 | 8 |
| 1. In-patient | 3% | 5% | 5% | 4% |
| 2. Out-patient | 16 | 8 | 1 | 25 |
| | 18% | 13% | 2.5% | 13% |
| 3. For X-ray | 15 | 10 | 3 | 28 |
| | 16% | 16% | 7.5% | 15% |
| Attended | 73 | 48 | 34 | 155 |
| Dentist | 81% | 79% | 85% | 81% |
| Did not attend | 17 | 13 | 6 | 36 |
| | 19% | 21% | 15% | 19% |
| Attended | 52 | 40 | 21 | 113 |
| Doctor | 58% | 66% | 53% | 60% |
| Did not attend | 38 | 21 | 19 | 78 |
| | 42% | 34% | 47% | 40% |
| National | 52 | 13 | - | 65 |
| Service done | 58% | 21% | - | 43% |
| Not done. | 38 | 48 | - | 86 |
| | 42% | 79% | - | 57% |

Table 1.

Type of Accommodation. Weekly Expenses etc.

| | Medical & Dental Men | | Science & Eng. Men | | All Facults. Women | | Total |
|-----------------------------------------------|----------------------|------------|--------------------|---------|--------------------|---------|-------|
| | No. | Submitted. | No. | Replied | No. | Replied | |
| Average Age | 24.4 yrs. | 21.9 | 22.0 | 23.16 | | | |
| Living 1. At Home | 35 | 39% | 38 | 62% | 19 | 48% | 92 |
| 2. In Univ. Hostels | 27 | 30% | 12 | 20% | 20 | 50% | 59 |
| 3. In Lodgings | 28 | 31% | 11 | 18% | 1 | 2% | 40 |
| Weekly Expenses, Meals & Lodgings Not Stated. | 9 | 10% | 9 | 15% | 10 | 25% | 28 |
| Under 50s. | 15 | 17% | 28 | 46% | 9 | 23% | 52 |
| 50 - 60s. | 13 | 14% | 10 | 16% | 15 | 38% | 27 |
| 60 - 70s. | 35 | 39% | 11 | 18% | 6 | 14% | 23 |
| 70 - 80s. | 9 | 10% | 1 | 2% | 1 | 8% | 12 |
| Over 80s. | 9 | 10% | 2 | 3% | 1 | 6% | 61 |
| Daily Cigarettes | 49 | 54% | 48 | 79% | 32 | 80% | 32% |
| Nil | 17 | 19% | 1 | 1.5% | 7 | 18% | 16 |
| 0 - 10 | 23 | 26% | 11 | 18% | 1 | 2% | 8% |
| 10 - 20 | 26 | 26% | 18 | 26% | 2 | 2% | 11 |
| X Excluding 21 replies from Arts and Law Men. | | | | | | | 6% |
| Daily Cigarettes | 49 | 54% | 48 | 79% | 32 | 80% | 129 |
| Nil | 17 | 19% | 1 | 1.5% | 7 | 18% | 68% |
| 0 - 10 | 23 | 26% | 11 | 18% | 1 | 2% | 25 |
| 10 - 20 | 26 | 26% | 18 | 26% | 2 | 2% | 13% |
| X Excluding 21 replies from Arts and Law Men. | | | | | | | 35 |
| | | | | | | | 18% |

to 567 students who had attended for miniature chest radiography some months previously. They were asked to give certain information concerning their weekly expenditure on meals and lodgings, the type of accommodation occupied, their position with regard to National Service, and their academic performance during the year, from the negative aspect as represented by the number of examination failures and from the positive aspect as represented by the number of honours certificates gained.

The results of the survey are shown in the Tables opposite. Figures are presented exactly as worked out from the replies received. It is appreciated that by sending the questionnaire only to those students who had attended for miniature X-ray, an element of selection was introduced from the very beginning. Further, the number of replies received makes the sample a small one not only numerically but also as a proportion of the total students in the Dundee side of the university.

The survey therefore is presented as a descriptive one only. Its object was partly to allow me to complete individual records, partly to demonstrate to the students here the possibilities in a survey of this nature and partly to indicate the lines on which a wider survey might be made at some future date.

There has been no attempt to infer too much from/

| | | | | | | | | | | | |
|---------------------------------|--|-------------|--|------------------------------|--|-----------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------|--|-------------------|--|
| | | | | Third 3 Fourth 4 | | | | | | | |
| SEX | | NATIONALITY | | SEX 10 Male 1 Female 2 | | CIVIL STATE 11 Married 1 Single 2 Widowed 3 Divorced 4 | | DATE OF BIRTH 12-13 14-15 16-17 18-19 | | DATE OF INTERVIEW | |
| NAME AND ADDRESS OF HOME DOCTOR | | SCHOOLS | | | | 22 Day 1 Boarding 2 Primary 3 Private 4 Secondary 5 Public 6 Other (specify) 7 | | FACULTY | | | |
| | | Junior | | Senior | | | | DEPARTMENT | | | |
| | | From To | | From To | | | | MILITARY SERVICE 24 Nil 1 0-2 years 2 Over 2 years 3 | | CARETAKER No. | |

| | | | | | | | |
|--------------------------|--|---------------------------|--|-------------------------------------|--|------------------------------------------|--|
| PREVIOUS MEDICAL HISTORY | | TROPICAL | | PERIODIC HEADACHES | | ANAEMIA | |
| FEVERS 26 | | 28 | | 1 30 | | | |
| Mumps 1 | | Malaria 1 | | PERIODIC VOMITING IN CHILDHOOD 2 | | NEPHRITIS | |
| Measles 2 | | Amoebic Dysentery 2 | | PERIODIC ABD. PAIN 3 | | PYELITIS-CYSTITIS | |
| Rubella 3 | | Bac. Dysentery 3 | | PERIODIC DIARRHOEA 4 | | PILES | |
| Chickenpox 4 | | Sprue 4 | | RECURRENT INDIGESTION 5 | | V.D. | |
| Whooping Cough 5 | | Other 5 | | ECZEMA OR URTICARIA 6 | | AC. RHEUMATISM, CHOREA (St. Vitus Dance) | |
| Scarlet Fever 6 | | RESPIRATORY 29 | | ACNE 7 | | WEAK HEART | |
| Diphtheria 7 | | Otorrhoea. Ext. Otitis 0 | | OTHER SKIN CONDITIONS, e.g. Boils 8 | | FAINTING | |
| Jaundice 8 | | Otitis Media 1 | | HAY FEVER 9 | | FITS | |
| Other Fevers 9 | | Frequent Colds, Catarrh 2 | | TUBERCULOSIS 1 31 | | NERVOUS DIFFICULTY OR BREAKDOWN | |
| | | Sinusitis 3 | | ENLARGED GLANDS 2 | | INJURY Head | |
| PREVIOUS INOCULATIONS 27 | | Tonsillitis, Quinsy 4 | | PREVIOUS CHEST X-RAY | | Fractures | |
| Diphtheria 1 | | Pneumonia 5 | | Satisfactory 3 | | Sprain | |
| Scarlet Fever 2 | | Pleurisy 6 | | Abnormal 4 | | Other | |
| Typhoid 3 | | Asthma 7 | | PREVIOUS MANTOUX TEST | | OPERATION Appendicectomy | |
| Vac. 4 | | Bronchitis 8 | | Positive 5 | | Tonsillectomy | |
| Other 5 | | Haemoptysis 9 | | Negative 6 | | Herniotomy | |
| | | | | | | Other surg. oper. | |

| | | | | | | | | | | | |
|-------------------------------|--|------------|--|-----|--|------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------|--|-------------------------------|--|
| FAMILY MEDICAL HISTORY | | Alive/Dead | | Age | | 34 | | 35 | | FATHER'S OCCUPATION | |
| | | | | | | 1 2 3 4 5 | | 1 2 3 4 | | | |
| | | | | | | Father Mother Brother (a) Brother (b) Brother (c) Sister (a) Sister (b) Sister (c) | | More distant Relations (to include Grand-parents, Uncles, Aunts, First Cousins) | | POSITION OF STUDENT IN FAMILY | |
| | | | | | | | | | | FATHER'S R.G. GROUPING | |
| | | | | 36 | | | | | | 37 | |
| Gastric Ulcer | | A | | | | | | | | 0 Tuberculosis, Pulmonary | |
| Duodenal Ulcer | | 0 | | | | | | | | 1 Glands | |
| Gastric Ulcer, type uncertain | | 1 | | | | | | | | 2 Other | |
| Asthma | | 2 | | | | | | | | 3 Cancer | |
| Epilepsy | | 3 | | | | | | | | 4 Nervous difficulty | |
| Mental breakdown | | 4 | | | | | | | | 5 Epilepsy | |
| Fever | | 5 | | | | | | | | 6 Mental breakdown | |
| Diabetes | | 6 | | | | | | | | 7 Anaemia, Pernicious | |
| Heart attack | | 7 | | | | | | | | 8 Iron deficiency | |
| H.B.P. | | 8 | | | | | | | | 9 Other family tendency | |
| | | 9 | | | | | | | | | |

| | | | | | | | |
|-----------------------------------|--|-------------------|--|--------------------------|--|-----------------------------|--|
| FUNCTIONAL HISTORY | | MENSTRUAL HISTORY | | REGULARITY | | HABITS | |
| E.E.P. 41 | | MENARCHE 46 | | Regular 1 Irregular 2 | | TOBACCO (CIGARETTES) | |
| Sound 1 | | 9 years 0 | | | | Nil | |
| More than 1 hour in getting off 2 | | 10 years 1 | | | | Slight (0-10 per day) | |
| Interrupted 3 | | 11 years 2 | | PAIN 49 | | Moderate (10-20 per day) | |
| Bad dreams 4 | | 12 years 3 | | Nil 1 | | Heavy (over 20 per day) | |
| | | 13 years 4 | | Slight 2 | | | |
| ANOREXIA 42 | | 14 years 5 | | Moderate 3 | | | |
| Normal 1 | | 15 years 6 | | Severe 4 | | | |
| Poor 2 | | 16 years 7 | | FREQUENCY 50 | | TOBACCO (PIPE) | |
| Unsatisfied 3 | | 17 years 8 | | Less than 21 1 | | Nil | |
| | | 18 years 9 | | 21 to 25 2 | | Slight (2 oz. per week) | |
| DYSMENORRHOEA 43 | | DURATION 47 | | 26 to 30 3 | | Moderate (2-4 oz. per week) | |
| Normal 1 | | 1 day 1 | | 31 to 35 4 | | Heavy (over 4 oz. per week) | |
| Abnormal 2 | | 2 days 2 | | 36 to 45 5 | | | |
| | | 3 days 3 | | More than 45 6 | | | |
| GESTATION 44 | | 4 days 4 | | DISCHARGE 51 | | ALCOHOL | |
| Normal 1 | | 5 days 5 | | Absent 1 | | Nil | |
| Abnormal 2 | | 6 days 6 | | Slight White 2 | | Occasional | |
| | | 7 days 7 | | Excessive 3 | | Regular | |
| MICTURITION 45 | | 8 days 8 | | TAMPON 52 | | | |
| Normal 1 | | Over 8 days 9 | | Internal 1 | | | |
| Nocturnal enuresis 2 | | | | External 2 | | | |
| Other abnormalities 3 | | | | | | | |

| | | | | | | | |
|-------------------------------------------|--|-----------------------|--|-----------------------|--|---------------------|--|
| LIVING CONDITIONS AT UNIVERSITY | | LIVING CONDITIONS | | WEEKLY EXPENDITURE | | DAILY TRAVEL | |
| OUTDOOR RECREATION 56 | | Home 1 | | MEALS AND LODGINGS 61 | | Under 1 hour return | |
| (Physician's opinion) | | Hostel or College 2 | | | | Over 1 hour return | |
| Sufficient 1 | | Lodgings 3 | | Under 50/- 1 | | | |
| Insufficient 2 | | Other 4 | | 50/- to 60/- 2 | | WEEKLY FARES | |
| OTHER RECREATION (Physician's opinion) 57 | | Halls of residence— 5 | | 60/- to 70/- 3 | | Under 5/- | |
| Sufficient 1 | | | | 70/- to 80/- 4 | | 5/- to 15/- | |
| Insufficient 2 | | | | 80/- to 90/- 5 | | Over 15/- | |
| WIM 50 YDS. Yes 1 58 | | | | Over 90/- 6 | | | |
| No 2 | | | | | | | |
| CAN DIVE Yes 1 59 | | | | | | | |
| No 2 | | | | | | | |

from the figures or to assume that they necessarily apply to the entire student population. Taken at their face value the figures are of interest and on some points are corroborated by evidence from other sources. In the full analysis of the survey (Part 2, Annual Report 1951-52, App. 4) comment is made on these points.

4. Sheldon's Somatotypes.

As outlined in an earlier section, the present Oxford type record form, as now used in several university health services, was designed by a small subcommittee of medical officers set up for the purpose following the first Nuffield Conference held in Oxford in 1947. This subcommittee took as their model a form that had been devised by the staff of the Nuffield Institute of Social Medicine for recording their findings when they began the medical examination of undergraduates in Oxford itself.

In that original record form, a copy of which is shown opposite, provision was made for recording not only the usual anthropometric and socio-economic data, but also the 'somatotype' of the student, on the basis of a classification devised by W. H. Sheldon. The subcommittee did not include space for somatotyping in the revised record form, on the grounds that the subject was one of mainly academic interest, of dubious or unproven practical value, and not likely to commend itself to medical officers who lacked training/

training in the rather specialised technique demanded.

There has been a recent revival of interest in the subject, however, and I should like to refer to it here particularly as regards its application to student health work.

In his original work, "The Varieties of Human Physique", Sheldon selected three primary physical aspects of bodily constitution as providing first-order criteria for differentiating individuals. He named these:-

1. Endomorphy - a relative predominance of soft roundness throughout the various regions of the body, with massive digestive viscera tending to dominate the body economy.
2. Mesomorphy - a relative predominance of muscle, bone and connective tissue, the mesomorphic physique being heavy, hard and rectangular in outline.
3. Ectomorphy - a relative predominance of linearity and fragility, the greatest surface area in proportion to mass and relatively the greatest sensory exposure.

These three basic components he treated as first-order variables - continuous variables of which different physiques might exhibit varying amounts. To each, numerals could be assigned, the numeral 1 representing the least degree of a component exhibited by any individual, the numeral 7 its maximum manifestation. By calculating an average from an assessment made on five different areas of the body, a final/

final three-figure 'somatotype' could be reached for any individual. Thus 711 - an individual extreme in endomorphy and lowest in the other two components, 117 - the extreme in ectomorphy, or 444 an individual at the midpoint in the three scales.

It was found there are more somatotypes very low in a component than very high in it. That is, there are more 1's than 7's. An individual can be at 1 in two of the components but at 6 or 7 in only one. With two rare exceptions, Sheldon found that the level of 5 also, can be reached in only one component. With seven grades in each of three components, there are altogether 343 theoretical somatotypes. Sheldon found that in practice only 76 combinations occur.

As originally described, the somatotype was worked out from a series of anthropometric measurements made on photographs of the subject taken in three standard positions. Later it was found possible to calculate the somatotype from a formula based on certain measurements made on the living subject. The correlation between the two methods, even when done by independent examiners, was found to be very high and calculation from standard measurements is now accepted procedure.

Sheldon further described what he termed three secondary variables of bodily constitution. These were (a) dysplasia - an inconsistent or uneven mixing of the three primary components in different regions of the body; (b) gynandromorphy - the exhibition in a marked degree/

degree of the physical characteristics of the opposite sex and (c) a textural aspect. These three secondary components are described in terms of indices, e.g., the d-index, which modify the three numeral somatotype.

That is the merest outline of a subject which involves a rather elaborate technique. During my early days in student health work, I studied Sheldon's work and found it of very great interest. I doubted, however, the possibility of its application as a routine procedure in the medical examination of students.

In a second work, "The Varieties of Temperament", Sheldon went a stage further and attempted, on lines similar to those above, a classification of individuals on the basis of temperament and personality. Tabulating sixty traits or personality characteristics (there are only thirty used in the shortened form of the scale), he grouped these into three sets, each representative of a certain personality-type which he called the viscerotonic, somatotonic and cerebrotonic respectively. By a numerical grading from 1 to 7 in each of these components, based on the examiner's assessment of the individual, a three-figure 'index of temperament' can be calculated. A rating of 4 or higher in any one personality component is required to grade a person as dominant in that respect. Thus five personality types are possible in this classification - the pure viscerotonic, somatotonic or cerebrotonic, the 'average' with no rating above 3 in any component, and the bidominant/

Findings at a meeting of university medical officers
bidominant with a rating of 4 or higher in any two
in Belfast in September, 1962.
components. It is, of course, a matter of speculation
whether human temperament, with all its subtleties
and vagaries, can be grouped into five varieties. On
that matter each inquirer must judge for himself.

Sheldon then attempted to match his 'somatotypes'
based on physical constitution, with the 'personality-
types' based on temperament. He concluded that the
normal correlation or matching was:-

Endomorphic - viscerotonic

Mesomorphic - somatotonic

Ectomorphic - cerebrotonic

That left two remaining groupings (a) where both
somatotype and index of temperament were classified as
'average' and (b) where somatotype and index of
temperament were negatively correlated, e.g., endomorphic
in somatotype and cerebrotonic in temperament. Thus
five groupings served Sheldon to classify any human
being as regards both physical configuration and
temperament. That is rather an over-simplification
of things for it should be borne in mind that both
somatotypes and indices of temperament are three-
numeral codes grading three components each.

My interest in Sheldon's theories has been
stimulated by some recent work done by Dr. Still,
Medical Officer to Leeds University. He applied
Sheldon's technique to the study of a group of
undergraduates in that university and described his
findings/

findings at a meeting of university medical officers in Belfast in September, 1952.

I found Dr. Still's work of such interest that, with his permission, I include a resume of his findings here. It must be stated at the outset that Dr. Still himself makes no extravagant claims as regards the validity of his figures nor, at this stage, is he attempting any conclusions. He views the whole subject with commendable objectivity at present and admits that further work in it is as likely to refute as to confirm his present findings.

He studied a group of 751 first year students at Leeds University during the academic year 1951-52. 593 of these were assessed both as to somatotype and personality-type. At the end of the year, their academic performance was recorded. Points were allotted according to a certain scale for each examination mark obtained and the total reduced to a proportion of 10. 'Special' subjects where only one examination was taken in an Honours course were given due weight. In the Table shown opposite the following page, Grade 10 represents the highest academic performance, Grade 0 the lowest. Grades 0 - 4 all represent varying degrees of failure, 5 - 7 average passes, 8 - 9 are very good marks and Grade 10 means 65 per cent or over in every subject.

In this group of students, academic performance was/

was compared with other factors such as amount of exercise, social status, extra-curricular activities etc. No significant correlation could be demonstrated. In the Table overleaf, Dr. Still summarises his findings when academic performance in the group was measured against physique and temperament. I quote his own description of this part of the study.

"By using standardised measurements of physique, and a standard technique for the assessment of temperament, the students in this survey have been separated into five groups:

1. Those who are, in Sheldon's terminology, predominantly 'endomorphie' in physique and predominantly 'viscerotonic' in temperament.
2. Those predominantly mesomorphic in physique and somatotonic in temperament.
3. Those predominantly ectomorphic in physique and predominantly cerebrotonic in temperament.
4. Those of 'average' physique and 'average' temperament in whom none of the three types of physique or temperament can be distinguished as preponderating.
5. Those in whom a preponderating type of physique is not matched by the corresponding temperament type. The preponderating type of physique is offset by a preponderating temperament of different type.

The/

Leeds University. Academic Performance and Correlation of Intelligence and Temperament in 593 Students.
(Quoted by permission of Dr. R. Still, Medical Officer, Leeds University)
(facing p.78)

| (facing p.78) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|----|-------|----|-------|----|-------|----|-------|----|---------------------------|------|-------|----|-------|---------------------------|-------|-----|-------|-----|--------------------------------|------|-------|-----|-------|------------------------|-------|-----|-------|------|-------|------|
| Leeds University | | | | | | | | | | | | | | | Negatively Correlated | | | | | | | | | | | | | | | | |
| Endomorphs, Viscerotronics | | | | | | | | | | Mesomorphs, Somatotronics | | | | | Ectomorphs, Cerebrotonics | | | | | Average Physique & Temperament | | | | | Physique & Temperament | | | | | | |
| Grade | M. | % | W. | % | T. | % | M. | % | W. | % | T. | % | M. | % | W. | % | T. | % | M. | % | W. | % | T. | % | M. | % | W. | % | T. | % | |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 2.5 | - | - | 5 | 2.0 | |
| 1 | 1 | 2.8 | - | - | 1 | 2.2 | 1 | 2.0 | - | - | 1 | 1.9 | - | - | - | 2.6 | - | 3 | 1.7 | 4 | 2.0 | - | - | 4 | 1.6 | - | - | 4 | 1.6 | | |
| 2 | 1 | 2.8 | - | - | 1 | 2.2 | 1 | 2.0 | - | - | 1 | 1.9 | - | - | 2 | 3.2 | - | 2 | 2.8 | 3 | 2.6 | 2 | 3.2 | 5 | 2.8 | 4 | 2.0 | - | 4 | 1.6 | |
| 3 | 1 | 2.8 | 2 | 18.2 | 3 | 6.5 | 4 | 8.0 | - | - | 4 | 7.7 | 1 | 11.1 | 3 | 4.2 | 10 | 8.8 | 9 | 5.7 | 9 | 4.5 | 13 | 5.6 | 4 | 2.0 | 4 | 8.0 | 27 | 10.8 | |
| 4 | 3 | 3.6 | - | - | 3 | 6.5 | 3 | 6.0 | - | - | 3 | 5.8 | - | 2 | 22.2 | 2 | 2.8 | 9 | 7.9 | 23 | 11.6 | 4 | 8.0 | 27 | 10.8 | 4 | 2.0 | 4 | 8.0 | 27 | 10.8 |
| 5 | 5 | 14.3 | 2 | 18.2 | 7 | 15.2 | 4 | 8.0 | - | - | 4 | 7.7 | 1 | 11.1 | 11 | 15.5 | 14 | 12.3 | 29 | 14.6 | 7 | 14.0 | 36 | 14.5 | 7 | 14.0 | 7 | 14.0 | 34 | 13.5 | |
| 6 | 4 | 11.4 | 1 | 9.1 | 5 | 10.9 | 8 | 16.0 | - | - | 8 | 15.4 | - | - | 7 | 9.8 | 17 | 14.9 | 27 | 13.6 | 7 | 14.0 | 34 | 13.5 | 27 | 13.6 | 7 | 14.0 | 34 | 13.5 | |
| 7 | 10 | 23.6 | 3 | 27.3 | 13 | 28.2 | 7 | 14.0 | 1 | 50.0 | 8 | 15.4 | 3 | 33.3 | 20 | 28.2 | 22 | 19.2 | 50 | 25.1 | 21 | 42.0 | 71 | 28.5 | 50 | 25.1 | 21 | 42.0 | 71 | 28.5 | |
| 8 | 7 | 20.0 | - | - | 7 | 15.2 | 15 | 30.0 | - | - | 15 | 28.8 | 2 | 22.2 | 14 | 19.7 | 20 | 17.5 | 26 | 13.1 | 7 | 14.0 | 33 | 13.5 | 26 | 13.1 | 7 | 14.0 | 33 | 13.5 | |
| 9 | 2 | 5.8 | 3 | 27.3 | 5 | 10.9 | 5 | 10.0 | 1 | 50.0 | 6 | 11.5 | - | - | 9 | 12.8 | 13 | 11.4 | 12 | 6.0 | - | - | 12 | 4.8 | 12 | 6.0 | - | - | 12 | 4.8 | |
| 10 | 1 | 2.8 | - | - | 1 | 2.2 | - | - | - | - | - | - | - | 1 | 1.7 | 2 | 1.8 | - | 2 | 1.2 | 1 | 0.5 | 1 | 0.4 | 1 | 0.5 | - | - | 1 | 0.4 | |
| No results | - | - | - | - | - | - | 2 | 4.0 | - | - | 2 | 3.9 | - | - | 2 | 2.8 | 1 | 1.0 | 9 | 4.5 | - | - | 9 | 3.6 | 9 | 4.5 | - | - | 9 | 3.6 | |
| JMARRY: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3-4 | | | | | | 17.4 | | | | | 17.3 | | | | | 9.8 | | | | | | | | | | | | | 19.3 | 21.2 | |
| 5-7 | | | | | | 54.3 | | | | | 38.5 | | | | | 53.5 | | | | | | | | | | | | | 48.6 | 56.7 | |
| -10 | | | | | | 28.3 | | | | | 40.3 | | | | | 33.9 | | | | | | | | | | | | | 31.4 | 18.5 | |
| No results | | | | | | - | | | | | 3.9 | | | | | 2.8 | | | | | | | | | | | | | 0.7 | 3.6 | |
| Total: | 35 | 100.0 | 11 | 100.0 | 46 | 100.0 | 50 | 100.0 | 2 | 100.0 | 52 | 100.0 | 9 | 100.0 | 71 | 100.0 | 114 | 100.0 | 199 | 100.0 | 50 | 100.0 | 249 | 100.0 | 199 | 100.0 | 50 | 100.0 | 249 | 100.0 | |

the examination results 2.4% had no examination

The academic performance of these groups have been compared and this comparison has shown the most striking differences of any in the series. The Table opposite shows that the ectomorph - cerebrotonics form the group that has succeeded best in avoiding failures (9.8 per cent in Grades 0 - 4), but it is the mesomorph - somatotonics who have achieved the highest percentage of good successes in the survey (40.3 per cent in Grades 8 - 10). They are in striking contrast with those of the non-matching physique and temperament who achieved only 18.5 per cent of good successes (Grades 8 - 10), the poorest score in these grades of any group in this series.

To speculate, it seems as though the hyper attentionality and apprehensiveness of the ectomorph - cerebrotonic enables him to avoid failure; but it is the aggressive determination and endurance in competitive conditions of the mesomorph - somatotonic which make for a high degree of success in examinations; while those with ill-matched physique and temperament have too much unresolved inner conflict to permit of the single-minded concentration necessary for success in examinations and in preparing for them. Other studies based more on general impressions of physique than on objective measurements tend to confirm the opinion that the mesomorph is a good examination subject.

Summary. The examination results of a group of 751 first/

first-year students have been used, in conjunction with the results of clinical examination and interview, in an investigation to discover whether environmental and constitutional factors have operated to produce success or failure in university examinations. It is suggested that the relationship between physique and temperament has an important bearing on academic performance; the effect of this correlation in the present group is described and discussed."

(unquote).

In this section I have discussed a few aspects of student health work on which university health services and others have conducted, and are still conducting, certain investigations. The aim has been to present not so much the conclusions reached in these investigations as the scope offered in this particular field of student health work. A little has been done, there is much yet to do.

.....

group and the lower 14.61 by the group of non-matching physique and temperament.

Dr. Still's studies were at that time far from complete and he himself appreciated that a closer scrutiny of his results might fail to reveal any statistical foundation for the deductions just quoted. I have in recent months corresponded at some length with Dr. Still and I should like to quote from his last communication on this subject. It modifies his earlier impressions to some extent and represents

Sheldon's Somatotypes.

In the foregoing section, Sheldon's method of typing bodily configuration and temperament was very briefly reviewed, and its possible application in student health work discussed.

This thesis was reaching its final form when Dr. Still communicated the initial results of an investigation he had conducted among students at Leeds University, wherein he had attempted to correlate academic performance with somato/temperament type. At that stage one could only indicate the interesting possibilities offered by further research in the subject, rather than attempt any detailed review of his investigation. Accordingly we merely noted his impression that academic failure occurred least seldom in the ectomorph-cerebrotonic group, and that of high examination marks the highest percentage (40.3) was obtained by the mesomorph-somatotonic group and the lowest (18.5) by the group of non-matching physique and temperament.

Dr. Still's studies were at that time far from complete and he himself appreciated that a closer scrutiny of his results might fail to reveal any statistical foundation for the deductions just quoted. I have in recent months corresponded at some length with Dr. Still and I should like to quote from his last communication on this subject. It modifies his earlier impressions to some extent and represents

a more considered view of his results after statistical evaluation of them.

"It was found that students in Group 5 (those with negatively correlated physique and temperament) fail to attain a high grade in their examinations in a much higher proportion than those whose temperaments match their physiques. After statistical analysis, it seems to be in a high degree unlikely that this finding can be attributed to chance and its explanation opens an interesting field for further observation and study. When those with the ectomorphic physique and the matching cerebrotonic temperament are compared with the remainder, the percentage results appear to show that they have fewer failures and more good successes than the rest but statistically the validity of this statement is doubtful. It seems equally doubtful that there exists a causal/^{connection}between the matching physique and temperament of the somatotonic-mesomorph and his high rate of good successes in examinations since the high value for chi-squared is mainly due to a reflection of the performance of the ill-matched group included in the "remainder" with whom contrasted. When the somatotonic-mesomorphs are compared only with other groups of matching temperament and physique, the value of chi-squared falls and the results lose their significance."

"When students are grouped by physique alone or by temperament alone, no significant differences in examination/

examination performance are apparent. When temperament and physique together are related to examination performance the results appear to be in a high degree significant. It is difficult to avoid the conclusion that it is the matching of physique and temperament that is relevant to performance in the examination situation, and that those with well matched physique and temperament are more likely than the ill matched to achieve success."

There we must leave the subject of Sheldon's somato-temperament typing and Dr. Still's studies in university students. The latter would have been dealt with at greater length had time permitted but my purpose was to draw attention to the interesting possibilities in this work rather than to attempt any conclusions, and to indicate it as an example of research being done in the field of student health. Whether this particular investigation will yield results of any practical value may be doubtful, but that question does not arise at this stage.

.....

of place in my duties. Section 5. Consultation and
treat. The Function of a Student Health Service.
the decision (3) Medical Attendance.

.....

as I turn now to the third important function of
a student health service, namely medical attendance
on students who require treatment or advice during
sickness or disability.

There are three schools of thought as regards
the necessity for including medical attendance among
the functions of a student health service and secondly
as regards the priority to be given this function
within those services which undertake it.

One school holds that the prime function of a
student health service is the medical examination
of undergraduates at agreed intervals. Another
believes that a university has discharged its
obligation in this respect when it has arranged that
medical treatment will be available for those students
requiring it. The third school believes that a student
health service should offer comprehensive facilities
and provide for both examination in health and
attendance and treatment during illness. Opinion
in the matter is possibly conditioned by local
circumstances and personal inclination. In my own
case, while aiming at achieving a comprehensive
service as the type best suited to the needs of this
university, I have had no option but to yield pride
of

of place in my duties to medical consultation and treatment. This^{is} probably the inevitable outcome of the decision to leave medical examination on a voluntary basis. But at the same time, I feel that as far as the students themselves are concerned, the chief benefit in having their own health service lies in the facilities it provides for medical consultation and attendance.

In the four Scottish universities, although the aim of all is 'student health' in its very widest sense, the approach has developed along slightly different lines, dictated mainly by local circumstances and requirements.

Edinburgh, first in the field with a student health service, concentrated on medical examination and hospital treatment when necessary; latterly domiciliary attendance on students sick in hostels and lodgings was added. Aberdeen, first to employ a full-time medical officer, aimed from the beginning at a comprehensive service. In 1948, the universities of Glasgow and St. Andrews both appointed full-time medical officers. Glasgow with its huge student population, many living far outside the city, has so far restricted itself to routine medical examination. St. Andrews, with its more compact student population, both in Dundee and in St. Andrews itself, has always given medical consultation and treatment high priority. But the aim everywhere was the same and the health service/

services of the four universities were bound to grow and develop as local circumstances dictated. There are certain factors, however, concerning medical attendance on students, which merit consideration. I wish to examine briefly certain of these factors.

1. Practitioner or University Doctor.

There has been discussion from time to time as to whether physicians in medical charge of students should be consultants or general practitioners, and as to whether their duties vis-a-vis students should be a whole-time or on a part-time basis. I do not propose to enter into the discussion here - it seems to me an entirely profitless one. Where a health service undertakes attendance on ill students, the practitioner charged with the work is a practitioner of general medicine and the more time he can devote to his work the better. If he has other clinical interests and duties, better still - their nature again will probably be dictated by local circumstances. What is important is that medical consultation and attendance be readily available to the student, at times which will meet his particular needs, and in a way which allows him to present his problems properly rather than rapidly.

The viewpoint of general practitioners within the town deserves consideration. Some were at first a little/ But it has been my experience here, as in every/

little resentful of a student health service in their midst and looked on it as yet another intrusion into the domain of the family doctor. Their attitude was that the years at university were but a phase in the life of an individual, requiring no change, as regards responsibility for his care, from family doctor to a university one. That argument has some merit when applied to students permanently domiciled in the university town; it has very little when applied to those who are resident only during the university terms, with the possible exception of one or two towns where undergraduates form a large proportion of the population.

Practitioners will accept school and industrial medical services since these are not competing for patients' "cards", but some are a little resentful of university doctors being able to treat students under National Health Service arrangements though the attitude is not in accordance with their own insistence of crowded waitingrooms, and the excessive demands on their time.

As regards arrangements for medical treatment, excluding accidents and emergencies, students fall into four categories.

(a) Students living at home.

It is conceded that students in this category might fairly be regarded as the responsibility of their family doctor. But it has been my experience here, as in every/

every other university health service that provides for medical attendance, that many of the students permanently resident in the town seem to prefer the services of the university doctor to those of the family practitioner. It is not a question of personalities which must vary from case to case, nor, probably, of the standard of treatment given. The university medical officer usually has ready access to specialist departments, to hospital and other local facilities; further he is readily available at convenient hours through the day and usually within the college precincts so that students may consult him with the minimum of inconvenience to themselves and without a lengthy wait in some crowded surgery.

In actual practice, the situation causes few difficulties. My own custom is to ask the student to obtain the permission of his family doctor before making use of the student health service. Now that practitioners know I have no designs on their students' National Health cards, permission is never withheld. In fact, several local doctors now refer their student patients to me when any special investigation is wanted.

(b) Students living in lodgings.

There are some problems peculiar to students in this category. A student coming to live in lodgings in a university town is free to register as a National Health Service patient, either with any local practitioner/

practitioner or with the university medical officer, provided the latter is on the list of the Local Executive Council as an approved practitioner under the National Health Service Acts. Many students, on first arrival, register with the student health service as they are entitled to do in this university. With many more, the standard procedure is to wait until illness overtakes them. The university doctor is then summoned and ultimately a medical card is traced or a temporary registration submitted to comply with National Health Service regulations.

Students in this category can be something of a worry to any type of medical attendant. Occasionally one finds students occupying very unsuitable accommodation but in general the standard of student lodgings in this town tends to be very good. The university office now maintains a list of rooms that have been inspected and passed as suitable for students. I cannot praise too highly the care and attention lavished by some landladies on their student boarders during illness. But some landladies, even with the best will in the world, are unable to add nursing duties to their domestic ones, or are prevented from doing so by outside work or other commitments. A student ill in these circumstances becomes something of a problem. Nursing and attention are the requirements rather than actual medical treatment, and if I am unable to arrange admission to hospital I have the alternative of making temporary/

temporary use of the sick-room accommodation in one of the hostels. There can be no uniform procedure in dealing with these students - each case must be considered on its own merits.

(c) Students in university hostels.

Here, the problem of providing medical attention during illness is more easily dealt with. Long before the introduction of student health services, most universities maintained one or more hostels or halls of residence for students. Usually one local practitioner was in medical charge. The responsibility has naturally passed now to the university medical officer. In this side of the university, three student hostels are maintained; in the two larger ones adequate sick-room accommodation is provided. The Wardens of all the hostels have given me the greatest possible co-operation in devising medical arrangements and a very happy state of affairs exists. No student in these hostels is precluded from exercising his right to register with the doctor of his choice, but I know of none who has chosen to go outside the arrangements made by the university.

(d) Married students living with their families.

Married students are more frequently met with nowadays than in the pre-war era. Many students choose to do their National Service before entering the university and a few of them marry during this period. Also in this category are some younger students/

students who enter into marriage before their studies are completed, and, in greater proportion perhaps, some older students who, for health, domestic or other reasons, have given up a former occupation.

To all married students, academic success is something to be taken seriously - their future, and their family's, depends on it. If economic worries are added to domestic responsibilities, life for these students becomes something of a strain.

I have never found married students difficult to deal with; they, in turn, seem to appreciate the more personal approach to their problems that a university health service apparently provides. Further, one notes in many of these students, a heightened sense of responsibility and increased capacity for good work that help them to shoulder their burdens. In one or two of my own married students, older men in each case, there had been an unfortunate choice of subject for study at university. They were all men who for some reason or another had given up former occupations and were trying to train for a new profession, medicine, dentistry or whatever it might be. They had not appreciated at the outset, all that a professional training entails at the present day, and in one or two cases it was possible to help them make a change to more suitable employment.

By/

By a restriction imposed by the Local Executive Council of this area, I am not allowed to accept as National Health patients, the wives or children of students at the university. Theoretically it is an unsatisfactory arrangement for the student to be attended by one doctor and his wife and children by another. In actual practice there is not much difficulty. If a married student asks advice on the subject, I advise him to register his family with one or two doctors known to me with whom I can work in close association. These doctors look after any domiciliary attendance; I have often been able to help in advice in various matters, in arranging consultations etc., and have derived much pleasure in doing so.

Some universities, Bristol and Birmingham for example, on which no restrictions in this matter have been imposed, have placed all the facilities of their health services at the disposal of students' families. Others have taken the view, quite a reasonable one, that students must arrange with a local practitioner for attendance on their families.

2. Liaison with Local Practitioners.

Where, as in Dundee, a proportion of university students still reside with their parents, some liaison between the student health service and local practitioners is desirable.

The practitioner attending a student patient should appreciate that the university medical officer can/

can sometimes be of assistance as an advisor in what might be called the occupational health problems of students. It would be in the public health interest if cases of tuberculosis or other communicable disease were notified to the university medical officer.

In cases of psychoneurotic illness, where there is association between the ailment and academic performance, the student might find his university doctor in the best position to advise or help him. One is pleased to note that many students now attend the health service here with the permission or on the advice of their own family medical attendant.

On the other hand, the medical officer can help the practitioner by arranging for injections, dressings etc. to be carried out at the health centre at times convenient to the student. Where the medical officer finds a defect or disability at routine medical examination of locally domiciled students, it is his duty to bring such defect to the notice of the family doctor. I have certain privileges here as regards the use of hospital laboratories, X-ray departments etc., and I have usually found local practitioners appreciative of any offer to make use of these for the benefit of their patients.

This liaison is something of rather slow growth but it seems worthy of cultivation. The National Health Service Acts which made every member of the community an 'entitled' patient, brought with them certain problems/

problems in professional ethics. But the difficulties are not insuperable and the effort to surmount them is worth the trouble. A student health service is dependent for its success on the goodwill of all who work in association with it.

3. National Health Service Arrangements.

It is necessary to devote some consideration to this rather important aspect of student health work. What follows applies only to the Dundee side of this university.

The introduction of the National Health Service (Scotland) Act, 1947, made every student, like any other member of the community, an 'entitled' patient. As a full-time university student, an individual is exempt from payment of the ordinary weekly contribution. He thereby forfeits any claim to draw sickness benefit during illness but retains the right to register with any doctor of his choice and to receive free medical attendance, free drugs and all the other benefits open to him under the National Health Service.

On the day appointed for this statute coming into force, any medical practitioner was entitled, on application to the Executive Council of his area, to be included on their list of medical practitioners undertaking to provide general medical services for persons in that area. In the Universities of Edinburgh and Aberdeen, this meant that their student health physicians, already established in these areas, passed automatically on to the list of approved

practitioners and were able to accept as National Health Service patients any student resident in their area.

In 1948, St. Andrews University appointed two medical officers, one in medical charge of that part of the university situated in St. Andrews itself, one of that part situated in Dundee. The terms of their appointment included no reference to the National Health Service Act; it was understood that each medical officer would make such provisions as he deemed desirable.

It seemed to me that a student health service could only function effectively in association with and really as part of, the larger National Service. Even from the narrow point of view of charges alone, it seemed that the student must be free to exercise his right to obtain medicines etc. at the rate payable by National Health Service patients. That meant the university physician being on the approved list of the Local Executive Council to be able to issue the appropriate forms.

Accordingly, on accepting my appointment here, I applied to be included in the list of medical practitioners undertaking to provide general medical services for persons resident in this area. At that time Dundee was considered an 'over-doctored' area and in the ordinary way no newcomer would have been accorded permission to practice in the town. In view of the special/

of the special circumstances, however, permission was granted in my case, but it was accorded to me as the University Medical Officer and with the restriction that I accept as National Health Service patients, only those students not permanently domiciled in Dundee. It was my own stipulation that from the beginning all capitation fees in respect of students be paid directly to the University Court.

Until recently the system worked fairly well. Most students not permanently resident in Dundee registered with the student health service or could be given treatment when necessary on a temporary registration form (E.C.19, Scotland). The restriction, however, barred me as the official medical attendant of students who were permanently resident in Dundee. For their own convenience, many of these students wanted treatment at the health centre and repeatedly requested. I had no objection to providing such treatment and in fact was anxious to do so, but there were difficulties in the way, firstly as regards prescribing for a person not on one's own list, and, secondly, in treating someone who officially at least was the patient of another doctor.

There the matter rests for the present. But some of the difficulties have been met, a working arrangement evolved and with it an appreciation of each other's point of view.

Summary of Attendances, 1948-52.

| | 1948-49 | | 1949-50 | | 1950-51 | | 1951-52 | | | | | |
|------------------------------------|---------|-------|---------|-----|---------|-------|-------------|-------|-------|-----|-----|------|
| | Men | Women | Total | Men | Women | Total | Men | Women | Total | | | |
| Medical and Dental Schools | 190 | 92 | 282 | 212 | 73 | 285 | 183 | 50 | 233 | 160 | 58 | 218 |
| Degree & Dip. in Education | 7 | 23 | 30 | 10 | 17 | 27 | 27 | 9 | 36 | 12 | 16 | 28 |
| University Coll. Dundee. x | 470 | 117 | 587 | 451 | 129 | 580 | 425 | 123 | 548 | 394 | 104 | 498 |
| Law Students | 32 | - | 32 | 42 | 3 | 45 | incl. above | | | 22 | 1 | 23 |
| Total Students | 699 | 232 | 931 | 715 | 222 | 937 | 635 | 182 | 817 | 588 | 179 | 767 |
| Medical exams. | | | 86 | | | 62 | | | 60 | | | 56 |
| Hospital admit. | | | 18 | | | 21 | | | 15 | | | 21 |
| Sanatoria admit TB | | | 1 | | | 4 | | | 1 | | | 2 |
| Attendances, treatment | | | 943 | | | 1489 | | | 1501 | | | 1571 |
| Domiciliary visits | | | 118 | | | 189 | | | 305 | | | 262 |
| Refd. Specialists | | | 47 | | | 51 | | | 51 | | | 70 |
| Refd. Chest Clinic | | | 2 | | | 5 | | | 4 | | | 4 |
| Eye Refractions | | | 37 | | | 40 | | | 28 | | | 18 |
| Students Treated | 203 | 64 | 267 | 313 | 98 | 411 | 399 | 106 | 505 | 383 | 92 | 475 |
| Mass X-ray | | | | 464 | 161 | 625 | 423 | 142 | 565 | 442 | 117 | 559 |
| N.H.I. Registrations | | | 121 | | | 171 | | | 196 | | | 221 |
| Attendances Treatment | | | 1061 | | | 1678 | | | 1806 | | | 1833 |
| Total Attendances excl. Mass X-ray | | | 1147 | | | 1740 | | | 1866 | | | 1976 |
| Total. All Attendances | | | 1147 | | | 2365 | | | 2431 | | | 2535 |

x Includes Medical and Dental Students - 1st. Year and 2nd. Year.

4. Medical Attendance. Statistics.

These figures showing the student population enrolled in the Dundee side of the University for the Martinmas term 1951-52, are taken from the General Council Report, January, 1952.

| | Men | Women | Total |
|-----------------------------------------|------------|------------|------------|
| Medical and Dental Schools | 160 | 58 | 218 |
| Degree and Diploma in Education, Dundee | 12 | 16 | 28 |
| University College, Dundee | 394 | 104 | 498 |
| | <u>566</u> | <u>178</u> | <u>744</u> |

With the addition of some members of the teaching staff, administrative staff, domestic staff of hostels, and students' wives and children, the 'practice' extends to something like one thousand individuals. Only students, however, are referred to in the figures for medical attendance given below.

The Table opposite summarises the position as regards medical attendance on students during the four academic years 1948-52. It will be seen there has been a steady rise each year in the number of students attending the health service for purposes of treatment. Although there was a slight fall in actual numbers attending during the year 1951-52, the figure represents the highest proportion of the total student population attending in any one year. The total of attendances and visits in connection with treatment also rises steadily and at 1833 for the year 1951-52 reaches/

reaches the highest to date.

The appendices to the annual reports included in Part 2, give details of the type and nature of conditions treated. These show considerable diversity but grave illness and the more chronic conditions of later adult life are met with but seldom. It has been a constant finding over four years that some seventy-five per cent of all attendances are accounted for by minor injury and sepsis, diseases of the ear, nose and throat, upper respiratory tract infections and disorders of the digestive tract. The proportion of attendances as related to bodily system involved is shown below; figures are given as percentages to the nearest whole number.

| | |
|--------------------------------------------------|----|
| Diseases of the Ear, Nose and Throat | 18 |
| Diseases of the Respiratory System | 15 |
| Minor Injury and Minor Sepsis | 13 |
| Diseases of the Skin | 12 |
| Diseases of the Digestive Tract | 12 |
| Diseases of the Eye and Visual Defects | 5 |
| Orthopaedic, Joint and Muscle Conditions | 4 |
| Psychoneuroses | 3 |
| Diseases of Cardiovasc. and Lymphatic Systems .. | 3 |
| Genito-urinary Conditions | 2 |
| Miscellaneous | 13 |

5. Admission to Hospital.

During the four years, 1948-52, seventy-five students required admission to hospital, and eight (discussed elsewhere) to sanatoria for treatment for tuberculosis.

The conditions for which the seventy-five students required hospital treatment are shown below.

Surgical/

| | |
|------------------------|----|
| Surgical conditions | 32 |
| Medical " | 13 |
| E.N.T. " | 12 |
| Infectious diseases | 10 |
| Skin " | 2 |
| Mental illness | 2 |
| Orthopaedic conditions | 2 |
| Gynaecological " | 2 |

To complete the record of these cases, the actual conditions requiring hospital treatment are listed below.

| | | | |
|--------------------|-----------|----------------------|-----------|
| <u>Surgical</u> | | <u>Medical</u> | |
| Acute appendicitis | 9 | Peptic ulcer | 3 |
| Haemorrhoids | 4 | Acute nephritis | 1 |
| Concussion | 2 | Albuminuria | 1 |
| Impacted molar | 2 | Lymphadenoma | 1 |
| Ulcer perforation | 1 | Amoebic dysentery | 1 |
| Carbuncle | 1 | Endocarditis | 1 |
| Anal fissure | 1 | C.N.S. investigation | 1 |
| TB. adenitis | 1 | Pleural effusion | 1 |
| Hernia | 1 | Essential | |
| Pyonephrosis | 1 | hypertension | 1 |
| Ischio-rectal | | Epilepsy | 1 |
| abscess | 1 | Cerebral thrombo- | |
| Bronchiectasis | 1 | phlebitis | 1 |
| Hydronephrosis | 1 | | <u>13</u> |
| Varices | 1 | | |
| Injury knee | 1 | <u>Skin</u> | |
| Urological | | Erythema multiforme | 1 |
| investigation | 1 | Epidermophytosis | 1 |
| Fibro-adenoma | | | <u>2</u> |
| breast | 1 | | |
| Ingrowing toenail | 1 | <u>Mental</u> | |
| Intestinal | | Schizophrenia | 1 |
| obstruction | 1 | Observation | 1 |
| | <u>32</u> | | <u>2</u> |
| <u>Infectious</u> | | <u>E.N.T.</u> | |
| Glandular fever | 2 | Acute tonsillitis | 5 |
| Measles | 2 | Strep. throat | 2 |
| Mumps | 2 | S.M.R. septum | 3 |
| Virus pneumonia | 1 | Tonsillectomy | 2 |
| Influenzal " | 1 | | <u>12</u> |
| Chickenpox | 1 | | |
| Catl. jaundice | 1 | <u>Orthopaedic</u> | |
| | <u>10</u> | Dislocated shoulder | 1 |
| <u>Gynaec.</u> | | Meniscotomy | 1 |
| Dysmenorrhoea | 2 | | <u>2</u> |

Summary/

Summary.

Before concluding this section on medical attendance, some of the points discussed may be summarised very briefly.

Hospital admissions. During the four-year period under review, excluding those admitted to sanatoria on account of pulmonary tuberculosis, seventy-five students required admission to hospital. Cases for whom surgical intervention was required, accounted for more than half that number. In the period under review, the total student population at risk was 3552. It is estimated that of this number, something like two thirds would be dealt with during illness by the student health service. On that basis, the hospital admission rate would be 31 per thousand students in any one year. It is of interest to note that Aberdeen University gave the figure of 33 per thousand in 1950-51.

Number of days illness. It has not been easy to reach any figure that represents the average period of absence from classes due to illness as experienced by students. In a pilot survey in 1951-52, the longest absence recorded, excluding cases under treatment for tuberculosis, was 30 days. Absence from classes due to illness as an average of all replies received, worked out at 1.8 days.

Ancillary and Specialist services. As student patients increased in number, so there had to be developed the/

the various ancillaries required in a health service of this nature, such as arrangements for laboratory investigations, for radiological examination and for reference to specialists. As regards the first two of these requirements, the student health service was privileged from the beginning in being given access to laboratories, X-ray departments and other facilities which are not at the disposal of local practitioners. That has been of great benefit to students and medical officer alike, and in many cases has allowed investigations normally only done in hospital, to be carried out while the student still attends classes.

Consultant advice or opinion has been freely at my disposal whenever I felt it necessary or desirable, with students given certain privileges and priorities over members of the general public. From the beginning the aim was to build not a one-man practice but a health 'service' with specialist opinion and treatment in every branch of medicine and surgery available when required. Thanks to the co-operation and good offices of many colleagues, that aim has now largely been achieved.

.....

There were not less than one hundred and forty-five such cases in three years at Oxford. More than half of these were stated by college authorities to have been due to mental illness and nervous breakdown.

Section 6.

Mental Health.

....

In opening the session on student health at the last Home Universities Conference (London, 1951), Dr. Parnell of the Nuffield Institute of Social Medicine, analysed mortality and morbidity figures applicable to Oxford undergraduates for the three years 1947-49 and made the following remarks.

"Suicide was more common than expected. Too much stress should not be laid on this. It is but one, though fatal, indication of maladjustment. The phenomenon is not confined to Oxford. As far as my information goes, for the academic year 1950-51 in this country, information derived partly from central notification of serious cases of mental breakdown and partly from other sources, it seems that a slightly higher rate may exist among students than among others of the same age. It has of course long been recognised by the Registrar-General that higher rates for suicide occur in the professional classes.

The next step is to consider prolonged illness defined here as illness causing one term's absence. There were not less than one hundred and forty-five such cases in three years at Oxford. More than half of these were stated by college authorities to have been due to mental illness and nervous breakdown.

.....

There/

There are two special points to be made. First, the criterion for prolonged illness was objective and secondly, the notifications represent a minimal statement. The results raise an important question. How far should mental ill-health be regarded as a particular hazard of student life compared with other occupations? One fact from another field may help to set this information in perspective. Between one-third and one-half of all medical invalids, men and women alike, were discharged from the Services on psychiatric grounds during the last war. This is not comparable with the student problem, but it will do to indicate very roughly what might loosely be called the general expectation. One can conclude only that there is a problem of mental ill-health, larger than and quite as serious as, at least as far as the university is concerned, that caused by tuberculosis. It certainly does not appear to be less among students than others, as might be hoped on the grounds of careful selection. Whether or not chairs of psychiatry are established, the practice of psychological medicine will continue, because forty-four per cent of the total number of hospital beds in this country are in mental hospitals and institutions for the mentally defective." (unquote).

So here is one worker, at least, convinced that in his own university, the question of mental ill-health among students is a serious one. The conviction is shared by several other workers in the field of student health.

TABLE 1.

ANALYSIS OF NOTIFICATION FORMS OF MENTAL BREAKDOWN

| <u>SEX</u> | | <u>No.</u> | | <u>POSITION OF STUDENT IN FAMILY</u> | | | |
|----------------------------------------------|----|------------|----|---------------------------------------------------|-----------------|---------------|---------------|
| M | F | 90 | 39 | <u>No.</u> | | <u>No.</u> | |
| | | | | 1 | 48 | 5 | 1 |
| | | | | 2 | 30 | 6 | - |
| | | | | 3 | 10 | 7 | 1 |
| | | | | 4 | 2 | 8 | 1 |
| | | | | N/S 37 | | | |
| <u>AGE</u> | | <u>No.</u> | | <u>NUMBER OF SIBLINGS</u> | | | |
| 17 | 2 | 26 | 6 | <u>Sibs.</u> | <u>No.</u> | <u>Sibs.</u> | <u>No.</u> |
| 18 | 6 | 27 | 2 | 0 | 19 | 5 | 2 |
| 19 | 18 | 28 | 3 | 1 | 23 | 6 | 1 |
| 20 | 13 | 29 | 2 | 2 | 30 | 7 | 1 |
| 21 | 13 | 30 | 2 | 3 | 13 | 8 | 1 |
| 22 | 18 | 31 | 1 | 4 | 4 | 9 | 1 |
| 23 | 8 | 32 | 1 | N/S 34 | | | |
| 24 | 11 | 33 | 1 | <u>FACULTIES</u> | | <u>No.</u> | |
| 25 | 9 | 34 | 1 | Arts | | 74 | |
| N/S 12 | | | | Medicine | | 22 | |
| <u>MILITARY SERVICE</u> | | <u>No.</u> | | Science | | 32 | |
| Nil | | 43 | | N/S | | 1 | |
| Completed | | 36 | | <u>RECORD</u> | | | |
| Deferred | | 20 | | | <u>Academic</u> | <u>Social</u> | <u>Athlet</u> |
| N/S | | 30 | | Exceptional | 16 | 4 | 1 |
| <u>COUNTRY OF ORIGIN</u> | | <u>No.</u> | | Standard | 56 | 34 | 16 |
| British | | 105 | | Below Standard | 22 | 38 | 53 |
| Dominion | | 3 | | N/S | 35 | 53 | 59 |
| Colonial | | 3 | | <u>EXAMINATIONS</u> | | <u>No.</u> | |
| European | | 3 | | Coincident | | 16 | |
| Near East | | 2 | | Impending - 1 week | | 6 | |
| Far East | | 4 | | 1 month | | 14 | |
| U.S.A. | | 1 | | Not impending | | 79 | |
| Other | | 1 | | N/S | | 14 | |
| N/S | | 6 | | <u>PRECIPITATING FACTOR (Physician's opinion)</u> | | <u>No.</u> | |
| <u>PARENTS - during childhood of patient</u> | | <u>No.</u> | | Academic stress | | 46 | |
| Death of one parent | | 20 | | Conflict with authority | | 5 | |
| Desertion | | 2 | | Conflict with parents | | 22 | |
| Separation | | 4 | | Financial stress | | 7 | |
| Divorce | | 1 | | B or G friend trouble | | 11 | |
| Re-marriage | | 4 | | Inadequate personality | | 59 | |
| Tension in home | | 31 | | Homosexual conflict | | 7 | |
| No conflict | | 32 | | Other | | 17 | |
| Not known | | 20 | | N/S | | 19 | |
| N/S | | 27 | | | | | |

In the autumn of 1950, a small committee under the chairmanship of Dr. Bolton of Birmingham University was set up to investigate cases of mental breakdown among students. Medical officers were asked to notify all cases of mental illness among students to this committee and, if possible, to supply certain information concerning them. By the end of the academic year 1950-51, there had been submitted from British universities 129 notifications. The information given concerning these cases is analysed in the two Tables opposite. (In a personal communication to me, Dr. Bolton states he doubts the validity of certain findings and this reservation should be noted in studying the figures.

Nevertheless, the fact remains that one hundred and twenty-nine cases of mental breakdown were notified and thirty-four of these required admission to mental hospital. With reference to the total number of cases, precipitating factors, in the opinion of the physicians concerned, were considered to be 'inadequate personality' in fifty-nine cases and 'academic stress' in forty-six. This raises the question^{of} lack of any coherent system for the selection of students but that requires too lengthy consideration for our present purpose.

In an early annual report, I drew a distinction between the 'psychotic' and the 'psychoneurotic' types of illness in students. I still think the distinction is necessary. Each type presents its own particular problems/

problems, each requires its own appropriate therapeutic measures. I propose to consider the two types of illness separately in the remainder of this section.

The Psychoses.

By psychosis is meant the illness of a person who at some points is not en rapport with other people and with the real world. The psychotic patient is insane in the ordinary meaning of the word, but the insenity may be temporary and curable.

In a student population which in this country numbers many thousands, a certain incidence of serious psychotic illness must necessarily occur. Students are at a vulnerable age when any tendency to schizophrenia or other form of mental disorder is most likely to declare itself. When faced with a student who shows signs or symptoms of mental abnormality, my first object is to determine whether I am dealing with a psychosis or with a neurosis. If the condition seems to me psychotic in nature or potentially so, I have no hesitation in seeking specialist opinion and advice. Expert treatment is a matter of urgency in these cases, partly for the sake of the rehabilitation of the patient, partly for the safety of the patient and of other people. Facilities for treatment, either in or out of mental hospital, are available in every university centre and prompt treatment is the first requirement. We are not concerned at that point with whether the student's academic career is interrupted temporarily or permanently/

permanently. There is no need to deal with the question of certification here. That will be decided on the merits of each case and possibly conditioned by local circumstances. Probably the day will come when there will be no certification of insanity.

In four years' work here, I have encountered three students suffering from mental illness of a psychotic nature. Two required treatment in a mental hospital for varying periods. I include a brief clinical description of the three cases.

Case 1. Female student. Final year Arts. This was a girl aged twenty-one years. Her previous academic record had been well up to standard, her disposition and behaviour in class such as to evoke no comment from teachers or fellow students. She lived at home, some twenty miles away, with her parents and one sister. One night she locked herself in the college library and was discovered the next morning by one of the cleaners. I saw the girl soon afterwards. She was completely disorientated, quiet if left alone but violently resistant to any attempt to move her. I was able to bring in the girl's mother but her presence tended to make things worse. But she was able to tell me something of the history and I found out that the girl's father had spent several periods as a patient in a mental hospital. For some months prior to the present incident, the father had been at home, and his presence in the house seemed to be the precipitating factor in the girl's breakdown/

breakdown. We managed with difficulty to get the girl to her home and she was placed in the charge of the consultant who was attending the father. I am unable to complete the story. The girl did not return to the university and I understand she and her family left this area shortly afterwards.

Case 2. Male student, aged 26 years. Honours Science.

This was a student who, having taken an ordinary degree in Science some years previously, had come back to do an Honours year. He had so many sources of mental conflict, and was so rational in his story of them, that for a time I regarded him as the ordinary type of psychoneurotic.

Although he was in a reserved occupation during the war, he felt guilt at having remained a civilian. He lived with his parents in a neighbouring town and there was constant tension between him and his father, a successful, self-made business man. The youngster was disturbed by sexual problems, masturbated regularly, and was involved in an unhappy love affair. Despite a good academic record in previous years his studies were now going badly.

For a time he reacted well to sedation and treatment on ordinary, conservative lines. Then delusions began with startling suddenness. A psychiatrist to whom I referred him diagnosed 'a schizophrenic episode in an acute anxiety state.' But the condition worsened rapidly, the student had to/

to be admitted to a mental hospital where, a few months later, the diagnosis of true schizophrenia was established.

There was little benefit from electro-convulsive or insulin therapy and finally a prefrontal leucotomy operation was performed. A year later the student's mental condition had improved sufficiently to allow him to return to university and undertake minor demonstrating duties. The improvement was not wholly maintained, however, and he is again under observation in a mental hospital.

Case 3. Male student, aged 18 years. First year Medicine. This was a boy of distinct ability who came up to university with a very good school record behind. His parents were Russian Jews in a small way of business. He was by no means of the average run of students and at my first meeting with him, when he attended for medical examination, I felt a rather difficult time lay ahead of him. His favourite reading was the works of Schopenhauer and Meister Eckhart and his nearest approach to physical exercise, a game of chess which he played with great skill.

His first six months at university were noteworthy for sound academic performance and for little else. He attended me from time to time for some minor ailment and always expressed contentment in his new environment. Then with very little warning, he began to develop oddities of speech and manner which were noted/

noted by other occupants of the university hostel in which he lived. They, however, felt reluctant to interfere and the matter only came to my notice when the student was discovered one day singing in the street.

At first sight, the lad was obviously at least temporarily insane and not responsible for his behaviour. He was in a highly elated state but violently resentful of any questioning. I communicated with his parents and the mother arrived the following day. I had hoped to be able to quieten the boy sufficiently to have him taken home and placed under observation. His mother's presence, however, served only to precipitate the crisis and he had to be removed forthwith to a local mental hospital. He remained there some six months; he gave no trouble and made a reasonable recovery. The physician in charge of him has never been anxious to commit himself to any exact diagnosis.

After a further four months at his home, the boy was allowed to resume his studies. Permission was given with some misgiving on my part. But the pleas of his parents were successful in overcoming my opposition and that of the university authorities. They were in relatively poor circumstances, they had the Jewish outlook on the value of education and they had sacrificed much for the boy. They still wanted to hope for the best and would not entertain my suggestion that a different occupation would be better for the boy.

The/

The boy has been back at his studies now for over a year. He has done quite well and given no trouble. I feel, however, there is in him some inherent mental instability and I am not altogether happy as to his academic future.

The purpose of describing the above cases is to show that there must be a certain incidence of psychotic illness in an undergraduate population. Since proper records have been kept, the incidence here seems to have been less than in some other universities. As has been explained, it is usually easy to arrange that these cases are placed under proper supervision. But treatment is in a way a short term objective concerning only the individual student; can university teachers or health service do anything to prevent mental breakdown in students, or failing that, to lessen its severity? Probably as regards the genuine psychosis they can do very little. Onset of symptoms, in a person so predisposed, seems to have little relation to his environment at the time. Teachers and doctors can probably combine to greatest advantage in the handling of the psychoneurotic type of illness, and although some aspects are common to both types, consideration of the part they can play follows later after discussion of psychoneurosis in students.

The Psychoneuroses.

By neurosis or psychoneurosis is meant a faulty, and sometimes disabling, emotional reaction to life
et/

at one or more points, with or without physical symptoms, the patient, however, remaining sane and en rapport with other people and with the real world.

Using the term as so defined, I should like now to examine the subject of psychoneurosis in students and some of the factors that may be involved. It is admitted by most university medical officers with whom I have discussed this subject, that the high incidence of neuroses and anxiety states is a worrying feature of student health work. These conditions seem to have become almost the common occupational disorders of present day students.

Teachers and others whose work brings them into association with undergraduates, have become aware of the problem as well as medical officers. The Vice-Chancellor of Oxford recently addressed a conference in these words. "Surveying the university scene as a whole, I get the impression that a lot of worrying is going on, some of it relatively harmless but a great deal harmful. The prevalence among university students of what are called anxiety states is a matter of mounting concern. Such figures as are available from university health services indicate that some form of acute personal anxiety is the commonest of student ailments. We encourage students to believe that an enormous amount will turn on the result of formidable examination tests. We give them enough history and philosophy to inculcate the complete uncertainty/

uncertainty of things and enough science to help them realise its potential destructiveness. Is it any wonder they tend to worry?"

The older professors and lecturers with whom I have discussed this problem, agree that worry amongst present day students seems more frequent and more serious than in their own day. Is it not possible, however, that the high incidence of psychoneurotic illness in students is but reflecting a trend which exists throughout the entire general population?

Discussing this problem recently with the Regional Medical Officer of this district, he stated that of all people in receipt of sickness benefit who had to appear before him for examination, cases of peptic ulcer formed the highest proportion, and of psychoneurotic conditions the next highest. Confirmation of that statement is given by many general practitioners. The reason may be a fairly obvious one as suggested to me by an American psychiatrist - "We all of this generation worry - there's plenty to worry about."

I mentioned the older generation of professors and lecturers as being aware of the extent of the problem. Yet I think some of these tend to overlook the vast change in the university scene of the present as compared with their own day. Many factors have contributed to the change. The modern student seems to lack the feeling of security and freedom that his predecessors/

predecessors enjoyed. He has first to gain admission to the university and then to justify his place. Standards are probably higher and competition more strenuous. Economic aid, which most students seem to enjoy, is given subject to satisfactory performance. A period of National Service has to be fitted in somewhere between leaving school and starting in employment. Medical students, to mention one particular group, are doubtful of their future place in a changing profession.

There is admittedly another side of the picture. Many present day students display a self-assurance and awareness of their rights to a remarkable degree. In student councils and committees, a leavening of older ex-Service men seems to have fostered an ability to handle their affairs with some skill. The modern student knows his rights in many matters and will see that he gets them. But on consideration of all the factors involved, my feeling is that compared with his predecessor, the student of today is less fortunate in some respects and has paid in mental stress and worry for the material benefits of the new age.

It is very difficult to give any figures showing the incidence of psychoneurotic conditions in students. One can state that so many suicides occurred in a certain university, or that so many cases of 'examination neurosis' were noted, or that so many students required treatment for psychological or emotional difficulties.

But/

But what of the cases of insomnia, nervous dyspepsia, headache, peptic ulcer and a host of others? Emotional stress or disturbance can have many disguises.

I quote my colleague in Queen's University, Belfast, (Annual Report 1950-51) who deals with something like two thousand students. "The number of psychiatric cases (70) seen during the past year shows an increase of eighteen over the present year. This is possibly accounted for by the increased number of students using the health service rather by an increase in the incidence of the condition. Among these were only three cases of true psychosis; two of these were students with schizophrenia requiring institutional treatment, one a first year student with a bad history who broke down shortly after entry and on whose condition university life cannot be said to have any bearing. There was also one case of psychopathic personality with hysteria who required institutional treatment for a short period but soon recovered and has since resumed his studies. The majority of the remainder were cases of varying degrees of anxiety, many coincident with the advent of examinations, and all showing one or more of the same group of symptoms, i.e. lack of concentration, lethargy, insomnia and various psychosomatic complaints. Apart from inherent instability in an individual, there is no doubt that the modern student has a more difficult task in front of him than his predecessor of only one generation ago. Curricula are increasing, competition is keener, failure in/

in examinations may mean the finish of an academic career, and the economic factor, probably today the most important single item, is ever present. As a result of the attitude of school teachers and parents, many students enter the university with the fixed idea that nothing in the way of extra-curricular activities must be allowed to interfere with their studies. It is these students who often break down. I have found it very rare to find an anxiety state requiring medical advice among students who take a normal part in the extra-curricular activities of the university, either athletic, social or cultural. If only the student before coming to the university could be made to realise that it offers to him or her much more than a degree in some chosen subject, that it gives them a chance to develop their character and personality, it would be more value to their future happiness than first class certificates and gold medals. While we in this university cannot change many of the fundamental causes of this mental ill-health, we can at least try to combat some contributory factors, and in this there is a part to be played by all in authority at the university who are during their work in constant contact with students." (unquote)

Macklin, in a recent annual report, gave some interesting figures on the incidence of psychoneuroses in students in Aberdeen University. In the year referred to, 1950-51, the student population there was 2,171 of whom 648 attended the health service for treatment with a total of 2,639 attendances. Of these

648 students, 90 of them, that is 13.8 per cent of the total, were cases of some form of psychoneurosis. Macklin states, "the most difficult cases to deal with and the most time-consuming were cases of psychoneurosis of which there were 90 (65 men and 25 women). This figure constitutes 13.8 per cent of all students attending and does not take into account a number of transient anxiety states occurring at or about examination time. Close investigation of these cases was made. The main stress factors appeared to be academic difficulty associated with examination worry, and the chief contributory causes, lack of exercise and interests often with long hours of study."

I summarise Macklin's figures below.

| | | | | |
|----------------|-------|-----------|----------------------------------|--|
| Anxiety states | Men | 63 | | |
| | Women | 24 | | |
| Hysteria | Men | 1 | | |
| | Women | 1 | | |
| Schizophrenia | Men | 1 | | |
| | | <u>90</u> | - (13.8% all students attending) | |

As regards cases of anxiety state, he considered the main association to be with:-

(a) University life

1. Work - in 59.7 per cent of the cases
2. Social 5.7 " "

(b) Outside factors

1. Home - 9.2 " "
2. Other - 25.3 " "

| Stress factors (% of all cases) | | Associated conditions | | Prominent manifestations | |
|------------------------------------|------|--------------------------|------|-----------------------------|------|
| Examination | | Lack of | | Digestive | 32.1 |
| worry | 49.4 | exercise | 78.1 | Cardiovasc. | 16.1 |
| Academic | | Lack of | | Lack of con: | |
| difficulty | 43.6 | interests | 60.9 | :centration | 13.8 |
| Undetermined | 23.0 | Lack of | | Headache | 8.0 |
| Home worries | 8.0 | both above | 55.1 | Depression | 6.9 |
| Sexual | 4.6 | Evening | | Fainting | 6.9 |
| Social mal: | | work +4 hrs. | 39.1 | Nosophobia | 5.7 |
| :adjustment | 4.6 | Started in | | Dysmen'hoea | 4.6 |
| Financial | 3.4 | Services | 12.6 | Amenorrhoea | 2.3 |
| Mental | | | | Insomnia | 3.4 |
| fatigue | 2.3 | | | Dermatitis | 2.3 |
| | | | | Asthma | 2.3 |
| | | | | Enuresis | 2.3 |
| | | | | Tinnitus | 1.1 |
| | | | | Suicidal | 1.1 |

(Cols. 2 and 3 also show % all cases)

That is a useful investigation. It would have been interesting if some form of character assessment could have been included. Examination worry and academic difficulty as the commonest stress factors is notable and corroborates views referred to earlier in this section.

I am not attempting to give any figures here which claim to represent accurately the incidence of psychoneurotic conditions among my own students. In the annual reports included in Part 2, certain cases are classified under the heading 'Psychoneurotic', but these were all students whose condition was unmistakably of psychological origin or who frankly admitted emotional disturbance. I am just as concerned with those students who complain of physical symptoms which but manifest underlying mental stress. As regards this/

this latter category, all I can say at present is that they form too high a proportion of the students who attend here for treatment.

In my first annual report, I stated that students suffering from psychoneurotic or psychosomatic illness seemed to fall into three categories. Firstly, those inadequately equipped mentally and intellectually by university standards. Secondly, those older students, often ex-Service men, with financial and family responsibilities, to whom academic failure would mean disaster, and thirdly, those individuals who tend to worry excessively over any difficulty, this group often including students of the highest academic ability.

That classification was meant merely as a working basis. When discussing this subject with an American friend, consultant psychiatrist to one of the largest universities in the United States, I was agreeably surprised to have his approval of it.

Incidentally, I do not propose here to quote American statistics on this subject. I was glad to have the opportunity of a long discussion on it with the psychiatrist just mentioned, and I have had a lengthy and interesting correspondence with Dr. Fry of Yale University and author of the work "Mental Health in College." I was impressed by the sympathetic and understanding attitude of these two men. But the American approach to this question differs in important respects from our own, and it is/

is difficult to interpret their statistics in the light of our standards. The psychiatrist seems to have an accepted place in the health team of American universities, a place not yet accorded in our own, and to be the subject of his attentions seems to be accepted as quite ordinary procedure by the students.

I mentioned earlier three categories or groups into which a majority of neurotic students can be placed. That serves only as a working basis; I am not very interested in trying to find the appropriate psychological label for individual cases. Once I am satisfied ⁺that the student with whom I am dealing is not psychotic or potentially so, I regard him or her as a human being wanting help or advice in some personal problem. There is no more satisfying or more rewarding work in student health practice.

Psychoneurotic illness may occur chiefly in the three groups of students referred to but there are certain factors common to all. Some of these have already been discussed in considering the causes of academic failure among students; what operates as a cause of academic failure may well operate also as a cause of neurotic illness. In the mentally inadequate group, sheer inability to work and study effectively is the usual determining factor. These students can try pathetically hard and work long hours but lack of any real method denies their work a just reward and leads only to frustration and disappointment.

Among/

Among other factors I have noticed are inadequate personality, domestic unhappiness, and the setting of a too high standard, the second class brain chasing first class honours. On occasion, the unhappy adolescent love affair has been noted as causing serious emotional upset as well as academic failure, but sexual difficulties in the narrower sense are not very often in evidence.

I have indicated the extent of the problem of psychoneurotic illness in students; is there anything teachers or physicians can do about it? I mention three measures which are at least worthy of consideration.

1. Selection of students.

This is a wide and difficult subject but some aspects are germane to the problem we are discussing. There are two schools of thought and their views are in sharp opposition. One advocates a system of careful selection of students; the other argues that drawing names from a hat would be equally useful from the university's point of view.

A procedure for the selection of students implies that the number of candidates exceeds the number of places available. That was once true taking the universities as a whole. It may still be true but to a much lesser extent and the seriousness of the problem varies in different universities and in different Faculties within the same university. But

up to a year or two ago, most universities were reporting that applications outnumbered available places by about six to one. In these circumstances some system of selection was necessary and many universities gave the matter much careful thought. Various methods were devised, those in common use included the following.

1. Interview of candidates by one person.
2. Interview by a group of persons which might be
 - (a) Of constant composition from meeting to meeting.
 - (b) Composed of different persons at each session.
3. Written special examination - essays etc.
4. Schoolmasters' or tutors' reports.
5. Reports from extra-academic sources.
6. Psychological and vocational tests.

It is not my intention, nor is space available, to examine each of these methods in detail. Certain universities and medical schools, however, claim to have devised systems which answer their own requirements satisfactorily. In some universities I think the stress has been too much on academic ability to the neglect of other considerations.

In many universities now, the number of applicants no longer outweighs the number of places available. In this university at present there is in fact a dearth of applicants for admission to certain faculties - in these, presumably anyone applying will be guaranteed a place on academic qualifications alone.

I would submit that no system of selection should omit interview of candidates for admission into
a/

a university, even though the standards adopted by the examiners vary from place to place, and in the same place from time to time. Interview alone will not eliminate the potentially psychotic student - if it did, it might eliminate the potential genius as well. What might be termed the 'calculated risk' can still be accepted. But interview ought to go far towards ensuring that the candidates accepted have that measure of stability and character which will enable them to stand up to the stress and strain that the present day undergraduate has to face. Medical and school reports should also be given due consideration in a selection system of this nature by means of which universities might go a long way towards solving the problem of mental breakdown in students.

2. Routine medical examination.

This follows on from selection of students though serving a somewhat different function. A satisfactory system of selection might eliminate many mentally unstable applicants; routine medical examination can at best only reveal mentally unstable students. It has always been a maxim, and rightly so, that the findings at medical examination on entry will never be disclosed or used to the prejudice of a student's subsequent academic career. Such an assurance is the bedrock of confidence between student and physician. What medical examination can do, however, along with regular/

regular follow-up examination, is to reveal the early signs of mental wear and tear. If the physician examining students in health is also their medical attendant during illness, he is in a still better position to note any evidence of mental or emotional strain. Like a good regimental doctor he should be able to detect those of his men who are reacting adversely to strain and deal with them before they reach breaking point.

I make no extravagant claims for the value of medical examination in this respect. A medical officer cannot have all his students under close observation; he can deal only with those students who voluntarily come to him or who do so on the advice of their teachers. Nor do I wish to appear to be exaggerating this whole question of neurotic illness in students. No one witnessing a scene in my consulting-room just the other day would accuse me of exaggeration. A young man in his early twenties was seated before me telling his story. His background was everything that should spell security - well-to-do parents, public school education, a profession of his own choosing, no financial worries of any description. Yet seldom have I seen stark naked fear so clearly written on human features; he was the very picture of mortal terror. There was nothing wrong with him physically and the real cause of his fear I have yet to discover, but surely in studying and trying to help cases like this/

this, a student health service has some part to play in the attempt to solve this difficult problem of mental illness among students.

3. Liaison.

I repeat the words I have used elsewhere, 'teachers and physicians.' They combine to the best advantage in this particular aspect of student welfare. I gladly pay tribute here to the friendly assistance given me by many of the staff of this university when made aware of some facts concerning their students. In almost every case there has been a joint and mutual endeavour to plan and act in the best interests of the student concerned. In some cases the result has been highly satisfactory; where it has been disappointing there was at least the consoling knowledge that everything possible was tried.

In some cases, usually with the sanction of the student concerned, I have brought certain information about him to the notice of his teachers. In other cases the teacher has taken the initiative and referred a student to me with his, the teacher's, appraisal of the situation. Sometimes the parents have been brought into consultation, a step which I am finding demands careful consideration. If the case is potentially psychotic, the advice of a psychiatrist may be sought as well. These combine then in planning a course of action best suited to the needs of the student.

These/

These three considerations noted above with particular reference to psychoneurotic illness, apply also to the psychoses and to the whole subject of mental breakdown in students. I would like to draw attention to but one other point before concluding this section. There has to be a distinction between sympathy and sentiment in dealing with these unfortunate students. It is right and proper that students should have ready access to their medical officer at any time, and with the assurance of a sympathetic hearing whatever the nature of their complaint. But on occasion, firmness as well as sympathy may be called for and it is no part of the medical officer's duty to shoulder burdens which are properly the responsibility of the student, or to shield him from the normal stresses of academic life. In this connection I recall the very significant words used by one speaker at a conference on student health. He was referring to medical students in particular but his words are capable of a much wider application. I find myself in complete agreement with his point of view.

"It is my opinion that for those intending to take up the arduous, responsible and worrying career of medicine, it is not a bad thing if there happens to exist some kind of mechanism which tends to reveal the psychological weaklings. Nearly all of us, I suppose, must have disliked the stressful circumstances of examinations. But few of us who qualified before the/

the war broke down from this cause, nor is there much evidence to show that many break down from it today. If a medical student cannot take in his stride the strain of his examinations, even the large final qualifying examination let alone those which precede it, it cannot augur well for his stability of temperament when as a doctor he becomes responsible for his fellows under conditions of the utmost anxiety for him. There is today a tide of sentiment in favour of making the lot of students easier and happier. I cannot say how strongly I support this in general. There is much room for improvement in many aspects of their lives. Let us, for instance, never cease agitating on their behalf for the removal of dead wood from the curriculum; much of it has long since become fossilised. Let us ever be critical, both personally and generally, of our teaching. Let us seek to rationalise examinations and most particularly strive to perfect our methods of selection, so that only those who can make good use of a university education are admitted to our Faculties. But I hope, nevertheless, that in considering the interesting problem of those too tender-minded to tolerate examinations, we teachers shall not do the ordinary student the profound disservice of exaggerating the difficulties which confront him in these tests. For these difficulties are inseparable from the business of revealing the knowledge and wisdom he has accumulated over the years; in other words/

words, from the very business of being a student."
(Brinton, Cambridge, 1951).

.....

It is proposed to examine this subject under the following headings and to attempt a comparison of the findings in this one of the smaller universities with those applicable to the undergraduate population of the country as a whole. Allowance must be made for variation in nomenclature and in diagnostic criteria when interpreting reports from different universities.

1. Incidence.
2. Mass radiography surveys.
3. Mantoux testing and P.P.D. vaccination.
4. Student Tuberculosis Centres.
5. General considerations.

1. Incidence.

Certain universities in this country, whose student health services were in operation prior to the outbreak of the last war, were able to estimate, with varying degrees of accuracy, the incidence of pulmonary tuberculosis in their students during those years. The subject was in for closer investigation in the years immediately following the war, and the new recently created of health services attached to these universities has been notified and their findings are to be reported in the following chapters.

Section 7.

Tuberculosis in students.

.....

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1. Incidence.

Certain universities in this country, whose student health services were in operation prior to the outbreak of the last war, were able to estimate, with varying degrees of accuracy, the incidence of pulmonary tuberculosis in their students during these years. The subject came in for closer investigation in the years immediately following the war, and the many recently created student health services were asked to examine the position in their own universities and notify their findings to a small committee set up to report on this question.

The committee's main interest was in ascertaining whether the incidence of tuberculosis in university students were such as to justify the setting-up of a special centre for treatment, and if so, the likely number of students to be catered for. The committee, under the chairmanship of Dr. Malleon of London University, studied the figures submitted to them and reported their findings at the conference on student health held at Cambridge in 1951. The following is a summary of the committee's report and recommendations.

'There is a large number of different surveys and reports giving the incidence of tuberculosis in the appropriate age groups for different parts of the country. There is no convincing evidence that the incidence of tuberculosis among students (other than medical students) differs in either direction from that among the ordinary population. However, it is not easy to use these figures for in almost all surveys, incidence is calculated on the basis of active tuberculosis per unit population.

All students with active tuberculosis are not obliged to interrupt their studies. A fair number, after a short break, can continue under medical supervision, even if with some restriction in the first instance. The incidence of students who have had substantially to interrupt studies cannot be found simply by calculating from the known surveys. Accordingly, /

Accordingly, the following investigation, albeit crude and imperfect, was undertaken. As a guide to the investigation it is worth noting that mass X-ray surveys throughout the general population regularly disclose between 3 and 4 cases of "active" tuberculosis per 1000 (0.3 to 0.4 per cent). The Prophit survey, dealing with a population broadly speaking of the student age group, reports active tuberculosis as 0.14 per cent male and 0.55 per cent female in the ordinary control groups, but 0.51 per cent male and 0.99 per cent female for medical students.

In contemplating an investigation it was apparent that it would be impossible to obtain accurate and statistically comparable figures for past years. The number of institutions involved was very large and few kept any relevant records of tuberculosis. Those that did were seldom able to present them in comparable form.

A great many universities have recently started some form of medical service and the medical officer in charge is usually able to provide some estimate of the incidence of tuberculosis among his students. In the majority of cases figures have only been obtainable over a year or two at most. Many student health services are only prophylactic and whilst they may know of cases detected by X-ray surveys, cases diagnosed by other means may be unknown. Even those universities running a comprehensive health service are most careful to state that a large proportion of students, usually about fifty/

fifty per cent, at no time avail themselves of the university facilities and have their medical treatment elsewhere; tuberculosis among such students is unknown to the medical officer. University medical officers report their mass X-ray surveys, but these reports are not as a rule in comparable terms, and in many cases they have no knowledge of the clinical findings other than "probable active tuberculosis, referred to chest physician." It is not always possible, therefore, to assess the number of students who are obliged to interrupt studies because of tuberculosis diagnosed in these surveys. A minimum figure can be had, nothing more. Clinical medical schools, as a rule, have good records of the incidence of tuberculosis among their students. The majority have full student X-ray examination, either voluntary or compulsory, and sound figures for the number of students interrupting studies are usually available from these schools but only in a minority can one assess whether their cases were a result of radiological surveys or not; partly because clinical and radiological observation is so intense, separation is not feasible.'

The committee's investigation was based on information received from all institutions of higher education, covering the academic years October 1944 to July 1949. In a questionnaire circulated to all student health services, information was sought on the following points.

1./

Table 1. Full-time students only.

| Student-yrs. reported | Sex-ratio M/F. | X-rays taken | Total Cases noted by rout- ine X-ray | Males Females where sex known | Incidence % | Incidence found by X-ray | Replies used re: jected |
|--------------------------|-------------------|-----------------|--------------------------------------------|-------------------------------------|----------------|--------------------------------|-------------------------------|
| A 95050 (a) | 3.4/1 | 31480 | 133 | 81 21 | 0.14 | 0.18 | 12 6 |
| B 37840 | 1.4/1 | 2280 | 42 | 26 11 | 0.11 | 0.17 | 15 1 |
| C 6370 | 3.9/1 | 1420 | 10 | 10 - | 0.16 | - | 9 4 |
| D 9670 | 1/50 | 2350 | 16 | 3 13 | 0.17 | 0.34 | 18 12 |
| E 3840 | 1/19 | no record | 7 | ? ? | 0.18 | - | 8 13 |
| Total 152770 | | 37530 | 208 | 120 45 | 0.14 | 0.18 | 62 36 |
| F 6090 | 2.2/1 | 3160 | 63 | n/a (c) 56 | 1.0 | n/a | 8 1 |

A. Universities excl. London D. Training Colleges
 B. London University E. Miscellaneous
 C. Technical Colleges F. Clinical Schools - medical students.

a. In a few, some medical students had to be included.

b. One medical school with a large proportion of women medical students reports extremely low TB incidence. This accounts for the low total female figure here.

c. Case finding is too regular with both clinical and X-ray examinations in Medical Schools to permit separating those found by X-ray surveys.

(opp. p.126).

1. The number of whole-time students employed over these years, with sex-distribution.
2. The number of cases known to have interrupted studies for two months or longer on account of tuberculosis, with sex-distribution.
3. The number of students known to have been X-rayed in different years.
4. The number of cases involving a two-months or longer interruption of studies, known to be diagnosed as a result of these surveys.

One hundred and one institutions, including nearly all the larger ones, sent in replies. The committee reported some difficulty in analysing the replies due to noncomparable figures and frequent ambiguities. Thirty-seven had to be rejected as unsuitable; from the remainder only certain gross data could be extracted. Populations at risk were given often in approximate figures; in some cases, the term 'full-time students' prohibited accuracy. But allowing for these difficulties, they found it possible to produce crude probable totals for populations.

Table 1. opposite summarises the committee's findings as regards gross incidence reported, not year-by-year analysis; totals are in the form of 'student-years' and 'students X-rayed.'

Later years provided more detailed records and accordingly the last available year (usually 1948-49, in a few cases 1949-50) was totalled separately.

Findings for this one year are shown in Table 2. opposite the following page.

From a study of both tables there seems to be a fair measure of agreement that for non-medical students, excepting those in training colleges, the incidence of pulmonary tuberculosis (i.e. involving a two-months or longer absence from classes) ranges from 0.14 to 0.17 per cent. The incidence as calculated from radiological surveys gives a slightly higher figure. It is repeated that these figures refer not to cases diagnosed as tuberculosis or even as 'active' tuberculosis, but to students known to have interrupted their studies for two months or longer on account of pulmonary tuberculosis.

A fair proportion of cases may be unknown to the authorities so the true incidence may be somewhat higher. If medical officers are right in their assertion that they only deal with fifty per cent of students at the university, the incidence would then be in the region of 0.3 per cent. That is probably a maximum, though not impossible figure. The committee's own summing-up of the situation was, "A conservative estimate and a convenient figure for this class (non-medical students) would be an incidence of 0.20 per cent."

It should be noted that the committee aimed at estimating the required bed-strength of a projected Student Tuberculosis Centre. The point is discussed later/

Table 2. (one year only)

| Student years | Students X-rayed where results of survey known | Cases | Cases found in X-ray surveys | Incidence % | Incidence % in X-ray surveys. |
|---------------|------------------------------------------------|-------|------------------------------|-------------|-------------------------------|
| A. 37100 | 14900 | 59 | 24 | 0.16 | 0.16 |
| B. 10250 | 1860 | 18 | 3 | 0.18 | 0.16 |
| C. 3940 | ? | 5 | ? | 0.13 | ? |
| D. 2670 | 1510 | 8 | ? | 0.30 | 0.47 |
| Total 53960 | 18270 | 90 | 34 | 0.17 | 0.19 |
| E. 1790 | 700 | 17 | n/a | 0.94 | n/a |

A, B etc. as for Table 1.

(opp. p. 128).

later but it may be interpolated here that, on the basis of figures supplied by the University Grants Committee, 1948, and the Secretary of State for Scotland, 1949, on an incidence of 0.20 per cent for all students in Britain excluding clinical medicals, the estimated bed-strength necessary would be 329, to which figure 85 would have to be added for clinical medical students who return an incidence of 1.0 per cent.

Let it be accepted for the moment that the expected incidence of pulmonary tuberculosis for all students with the exception of clinical medicals is in the region of 0.2 per cent, but noting that no reference is made to the nature of the lesion and that the figure is based on one criterion only, interruption of studies for two months or longer. In other words, at any one time, two students in every thousand are in need of sanatorium treatment. Recent work suggests that the actual figure is nearer three per thousand." (Report, Institute of Social Medicine, Oxford).

These figures give no information concerning the prevalence of tuberculosis infection among undergraduates or the total tuberculosis rate. For information on these matters, recourse must be had to the results of Mantoux and Mass X-ray surveys. These are discussed later in this section.

At this point, however, a word on the question of mortality. Figures show that tuberculosis is responsible for almost one-third of the deaths of men aged 15-24 in England/

England and Wales. In young women, it was responsible in 1947 for fifty-four per cent of all deaths in the same age-group. Yet only one death from tuberculosis was recorded among thirty-five Oxford undergraduates who died in the three years from January 1947 to December 1949. Other universities report a similar ratio. In four years in this side of the University of St. Andrews, there has been no death from tuberculosis. It is known, however, that at the end of progressive tuberculous illness, mortality ratios are always lower for the higher social classes, the trend applying to all age-groups.

Reverting to 0.2 per cent as the expected incidence of tuberculosis causing an interruption of classes for a term or longer, there are two difficulties in interpreting figures obtained during four years work here. Firstly, the student population at risk is a small one. During the academic years 1948-52 the total students averaged 888, and in only one year exceeded one thousand. Secondly, the health service deals with only a proportion of the students. It is an increasing proportion but some students are domiciled locally and during illness would come under the care of their family doctor. But it is possible to state that none in this category has been admitted to a sanatorium since the health service started.

Between October 1948 and July 1952, eight students/

students have had to interrupt their studies for a term or longer on account of pulmonary tuberculosis. One of these was only reported to the student health service and is not included in the annual report for that year (1948-49). The following notes briefly review the case histories.

Year 1948-49. Total students 931. Admitted to sanatorium 1.

Female. Training College student. Had been diagnosed tuberculosis in the previous year. The condition was not controlled under domiciliary treatment and she had to be admitted to a sanatorium. I include her here as her admission to hospital occurred during the first year the health service was operating, but I had no other dealings with her and she is not entered in the annual report for the year.

Year 1949-50. Total students 1037. Admitted 4.

1. Male, 4th Year Dentistry. This student had been on the records of the local Chest Clinic since invalided from the Services at the end of the last war as a case of pulmonary tuberculosis. He was ultimately persuaded to give up his studies to undergo sanatorium treatment. He was discharged from hospital some time ago but he has not resumed his studies and cannot be traced in the district.

2. Male, Final Year Medicine. This student was discovered at routine medical examination. He was kept under observation until his examinations were over/

over and then admitted to sanatorium. He made an excellent recovery and was discharged after three months treatment. He has kept well since.

3. Male, 2nd Year Science. This student attended the consulting-room one morning with a history of a slight haemoptysis the previous evening. X-ray examination was carried out immediately and showed an early focus in the left apex; the boy was admitted to hospital the same day. His progress might have been more rapid had his parents not had ideas of their own about treatment. Eventually, however, he recovered sufficiently to resume his studies and he remains under observation.

4. Female, 2nd Year Science. Discovered at Mass X-ray, the first survey to be held in the university. Investigation confirmed the presence of active tuberculosis and she was admitted to a sanatorium forthwith. Her progress was uninterrupted and she has since resumed her studies.

Year 1950-51. Total students 817. Admitted 1.

Male, Final Year Arts. Discovered at Mass X-ray.

Further investigation confirmed the presence of an active tuberculous focus. He was kept under observation for a time but failing to make satisfactory progress he had to be admitted to a sanatorium. He responded well to treatment there and has since gone back to classes.

Year 1951-52. Total students 767. Admitted 2.

1. Female, 2nd Year Arts. Discovered at Mass X-ray

1950-51. She failed to maintain satisfactory improvement under domiciliary treatment and was

admitted/

admitted to a sanatorium this year. She is still undergoing treatment as an in-patient.

2. Male, Final Year Arts. Discovered at Mass X-ray in 1949-50. He felt well and was allowed to continue classes while he remained under observation. Recently there was a sudden alteration in the radiographic appearances and he was admitted to sanatorium for more detailed investigation.

The following Table summarises the position. The eight cases referred to were all proved cases of pulmonary tuberculosis whose studies were interrupted for one term or longer.

Table 3.

| Year | Total students | No. with more than 1 term's absence |
|---------|----------------|-------------------------------------|
| 1948-49 | 931 | 1 |
| 1949-50 | 1037 | 4 |
| 1950-51 | 817 | 1 |
| 1951-52 | 767 | 2 |
| Total | 3552 | 8 |

No. of students at risk 1948-52 3552

Expected number of students interrupting
classes due to pulmonary tuberculosis,

based on an incidence of 0.2 per cent 7

Actual number interrupting classes 8

Table 4.

Comparative Analysis of Initial X-ray Findings.

| Year | Place and subjects. | Population X-rayed | Total TB rate per 1000 |
|---------|------------------------------------------------------|--------------------|------------------------|
| 1947-48 | Oxford under-graduates. | 393 | 10.2 |
| 1948-49 | Cambridge " | 3029 | 7.6 |
| 1946-48 | Edinburgh " | 4384 | 6.4 |
| 1947-48 | Univ.of Wales | 3240 | 7.4 |
| 1935-44 | Prophit survey Medical students | 2087 | 8.0 |
| 1939-42 | Royal Navy Age, under 20 | 42365 | 4.3 |
| | 20-24 | 57281 | 5.6 |
| | 25-29 | 27117 | 9.4 |
| | 30-34 | 18274 | 10.9 |
| 1941-43 | R.A.F. Age, under 20 | 80994 | 4.9 |
| | 20-24 | 50923 | 6.4 |
| | 25-29 | 18445 | 9.2 |
| | 30-34 | 17379 | 12.2 |
| 1943-44 | Middlesex. Male factory workers aged 14-24. | 1758 | 8.0 |

(opp. p. 133).

The number of students at risk in this side of the university, is too small to justify any conclusions as regards the incidence of tuberculosis. All that can be said is that the actual incidence has closely paralleled the expected incidence based on the rate of 0.2 per cent as calculated by the student health committee already referred to.

2. Mass X-ray Surveys; Tuberculosis Morbidity.

Here again lack of uniform terminology makes it difficult to compare results obtained in different universities, or the findings applicable to students with those applicable to similar age-groups in the general population. Certain workers will not list as 'tuberculosis', cases showing only old calcified foci or healed lesions of minimum radiological signs; other workers seemingly accept almost any radiological abnormality possibly of tuberculous origin.

The Table opposite presents a useful general picture of mass radiography findings in university students and in young adults of comparable age drawn from other sections of the community. It was compiled by Dr. Parnell of the Nuffield Institute of Social Medicine who comments on it thus. "Tuberculosis morbidity rates as judged by routine radiography among university students show no significant difference from Navy or Royal Air Force personnel, nor from those of the same age in civilian occupations. The well recognised/

TABLE 5.

Queen's University, Belfast.

Mass X-Ray Survey, 1950 - 51.

Students examined classified by sex, age and mass miniature radiography result.

| Sex and mass miniature radiography result | Age in years | | | | | | Total |
|----------------------------------------------|--------------|------------|-----------|-----------|----------|-----------|------------|
| | 17 - | 18 - | 19 - | 20 - | 25 | 30 + | |
| <u>Males</u> | | | | | | | |
| Active tuberculosis | 1 (1.3) | 1 (0.6) | - (-) | 1 (1.7) | - (-) | - (-) | 3 (0.8) |
| Healed tuberculosis | 5 (6.4) | 6 (3.7) | - (-) | 3 (5.2) | - (-) | 1 (9.1) | 15 (3.9) |
| Suspected tuberculosis | - (-) | - (-) | - (-) | - (-) | - (-) | - (-) | - (-) |
| Other abnormality | 3 (3.8) | 2 (1.2) | 2 (2.8) | 1 (1.7) | 1 (12.5) | 1 (9.1) | 10 (2.6) |
| Normal | 69 (88.5) | 153 (94.4) | 70 (97.2) | 53 (91.4) | 7 (87.5) | 9 (81.8) | 361 (92.8) |
| Total males | 78 (100) | 162 (100) | 72 (100) | 58 (100) | 8 (100) | 11 (100) | 389 (100) |
| <u>Females</u> | | | | | | | |
| Active tuberculosis | - (-) | - (-) | - (-) | - (-) | - (-) | - (-) | - (-) |
| Healed tuberculosis | 1 (3.4) | 3 (3.8) | 2 (9.1) | 1 (5.6) | - (-) | - (-) | 7 (4.6) |
| Suspected tuberculosis | - (-) | - (-) | - (-) | - (-) | - (-) | - (-) | - (-) |
| Other abnormality | - (-) | 1 (1.3) | - (-) | - (-) | - (-) | - (-) | 1 (0.7) |
| Normal | 28 (96.6) | 74 (94.9) | 20 (90.9) | 17 (94.4) | 1 (100) | 3 (100) | 143 (94.7) |
| Total females | 29 (100) | 78 (100) | 22 (100) | 18 (100) | 1 (100) | 3 (100) | 151 (100) |
| <u>Total</u> | | | | | | | |
| Active tuberculosis | 1 (0.9) | 1 (0.4) | - (-) | 1 (1.3) | - (-) | - (-) | 3 (0.6) |
| Healed tuberculosis | 6 (5.6) | 9 (3.8) | 2 (2.1) | 4 (5.3) | - (-) | 1 (7.1) | 22 (4.0) |
| Suspected tuberculosis | - (-) | - (-) | - (-) | - (-) | - (-) | - (-) | - (-) |
| Other abnormality | 3 (2.8) | 3 (1.3) | 2 (2.1) | 1 (1.3) | 1 (11.1) | 1 (7.1) | 11 (2.0) |
| Normal | 97 (90.7) | 227 (94.6) | 90 (95.7) | 70 (92.1) | 8 (88.9) | 12 (85.7) | 504 (93.3) |
| Total | 107 (100) | 540 (100) | 244 (100) | 76 (100) | 9 (100) | 14 (100) | 540 (100) |

recognised risk to medical students during their clinical years, and for that matter to nurses also, is another problem. There is no conclusive evidence of a special occupational hazard for university students. A prominent and dangerous hazard exists but it appears to be much the same for university students as for other young adults." In the Table, the total tuberculosis rate in students (clinical medicals excepted) is shown as varying between 6.4 and 10.2 per thousand.

Living conditions in Northern Ireland are perhaps not strictly comparable with our own but Table 5. which follows gives the results of a mass radiography survey in the students at Queen's University, Belfast, in the year 1950-51. The results are of interest as they are classified by age and sex. Here a total tuberculosis rate of 4.6 per cent is shown but active tuberculosis accounts for 0.6 per cent. The results from the same university for 1951-52 have just reached me. The rate for active tuberculosis is given for that year as 0.57 per cent.

In 1950-51, Cambridge University conducted a mass X-ray survey in 3848 undergraduates and classified their findings as follows.

| | |
|---------------------------------------------------|----|
| A. Old healed lesions requiring no further action | 43 |
| B. Healed but requiring further observation | 9 |
| C. Newly discovered significant lesions | |
| (a) Requiring immediate treatment | 4 |
| (b) Requiring further observation | 8 |
| D. Doubtful appearances requiring observation | 6 |

Results from these figures would show:-

| | |
|-----------------------------------------------|---------------|
| 1. Total of potentially active TB. (B plus C) | 21 (0.55%) |
|-----------------------------------------------|---------------|

2./

2. Total tuberculosis rate 70
(1.82%)
3. Total TB. rate (excl. old healed lesions) 27
(0.70%)

Mass X-ray Results. St. Andrews University (in Dundee).

In the academic year 1949-50, the first mass radiography survey of Dundee students was undertaken. Attendance was voluntary but seventy-five per cent of students notified, attended for examination. Mass X-ray surveys have been held annually since. Results are tabulated below, those for 1949-50 being shown separately as the basis of classification was altered in subsequent years.

Table 6. Dundee Students, 1949-50.

| X-rayed | | Recalled for large film | Recalled for Clinic. exam. | Provisionally diagnosed TB. |
|---------|-----|-------------------------|----------------------------|-----------------------------|
| Men | 464 | 23 | 8 | 5 (1.08%) |
| Women | 161 | 7 | 2 | 2 (1.24%) |
| Total | 625 | 30 | 10 | 7 (1.12%) |

Of the seven students provisionally diagnosed as showing some form of pulmonary tuberculosis, only one had subsequently to be admitted to a sanatorium. After thorough investigation and varying periods under observation the remaining six were eventually discharged.

In the academic year 1950-51, the classification as shown in Table 7 below was adopted. It has been adhered to since and permits the results in two surveys/

surveys to be shown in the one Table.

Table 7. Dundee Students, 1950-51, 1951-52.

| X-rayed | Suspected Active TB. | Inactive TB. | Other X-ray abnormality |
|------------|-------------------------|--------------|----------------------------|
| Men 865 | 2 | 3 | 5 |
| Women 259 | 2 | 1 | 1 |
| Total 1124 | 4 | 4 | 6 |

Four cases of active tuberculosis, four of inactive gives a total of eight students showing radiographic signs of tuberculosis, out of 1124 X-rayed, or an incidence of 0.71 per cent. The latter figure, however, cannot be taken as representing the total tuberculosis rate in students here over these two years, since some twenty-five per cent of students did not attend for examination, and among the absentees were several students already under observation for a pulmonary lesion discovered at routine examination or in the course of medical attendance for some other illness. The incidence of 0.71 per cent, therefore, represents only a minimal figure as deduced from the findings at mass radiography. It compares closely, however, with the incidence of 0.70 per cent in Cambridge students, when old healed lesions were excluded. (page 135).

It is not easy to arrive at a figure which represents exactly the total incidence of pulmonary tuberculosis/

tuberculosis among students in the Dundee side of this university. Only a proportion of students is dealt with by the student health service. The proportion is now some seventy per cent of all enrolled students, but I have heard indirectly of one or two who at some time or other have been under observation for suspected tuberculosis and of whom I have no record.

The total number of students enrolled here in the years 1948-52 was 3552. In that period, eight students have required admission to sanatoria and fourteen others have spent varying periods under observation for lung lesions considered definitely tuberculous. That yields a total of twenty-two students, the figure excluding those who required a few attendances or X-rays to exclude tuberculosis, and also all those showing old healed lesions which required no further action. The figure 22/3552 would give an incidence of 0.62 per cent. If the year 1948-49 is disregarded, the figure becomes 20/2621, which gives an incidence of 0.76 per cent, probably a more accurate index.

3. Mantoux Testing. Tuberculosis Infection.

B.C.G. Vaccine.

In 1949, the Department of Health for Scotland, made B.C.G. vaccine available for all medical students and nurses for whom it might be recommended. Those considered suitable were negative-reactors to the Mantoux/

Mantoux tuberculin test with a clear chest X-ray. The various university health services thereupon undertook to Mantoux test all medical students who volunteered. The findings show a remarkable degree of uniformity.

Hedval, in Sweden, had previously drawn attention to the high Mantoux conversion-rate in students undergoing instruction in pathology. That work was subsequently confirmed by studies carried out in this country. Table 9. below shows results obtained by Houghton and Horne who Mantoux-tested a group of Edinburgh medical students in 1950.

Table 8.

| Year of study | Total tested | Positive to 0.1 or 1 mg. O.T. | | Negative to 1 mg. O.T. | |
|---------------|--------------|-------------------------------|-------|------------------------|-------|
| | | No. | %-age | No. | %-age |
| 1 | 245 | 189 | 77.1 | 56 | 22.9 |
| 2 | 234 | 182 | 77.8 | 52 | 22.2 |
| 3 | 315 | 258 | 81.9 | 57 | 18.1 |
| 4 | 269 | 233 | 86.6 | 36 | 13.4 |
| 5 | 234 | 209 | 88.9 | 26 | 11.1 |
| 6 | 5 | 5 | 100.0 | 0 | 0 |
| | 1302 | 1076 | 82.6 | 227 | 17.4 |

Houghton and Horne's figure of 77 per cent positive-reactors among medical students beginning their studies, was confirmed by Henderson in Glasgow. 216 first year students tested in 1949-50 showed 164 (75.9%) positive-reactors, 281 tested in 1950-51 gave 215 (76.5%) positive-reactors. In 1950-51, a control group was taken from medical and dental students undergoing instruction in pathology. Positive-reactors were 85.5% (188/220)/

(188/220) in this group.

Our figures in Dundee are in agreement with these for pre-clinical students, but are higher for students in their clinical years. Results obtained during the three years 1949-52 are summarised below.

Table 9. Mantoux Testing - Dundee.

| Group | No. tested | Positive | Negative |
|--------------------|------------|----------|----------|
| Preclinical | 81 | 63 | 18 |
| Men | | (77.8%) | (22.2%) |
| Women | 42 | 30 | 12 |
| | | (73.7%) | (26.3%) |
| Preclinical Total | 123 | 93 | 30 |
| | | (75.7%) | (24.3%) |
| Clinical | 123 | 120 | 3 |
| Men | | (97.6%) | (2.4%) |
| Women | 32 | 28 | 4 |
| | | (87.5%) | (12.5%) |
| Clinical Total | 155 | 148 | 7 |
| | | (95.5%) | (4.5%) |
| Total All Students | 278 | 241 | 37 |
| | | (86.7%) | (13.3%) |

It is not necessary to dwell at too great length on the prevalence of tuberculosis infection in undergraduates as estimated by the Mantoux test. I have gone through the annual reports of all the university health services in this country and the results of Mantoux surveys carried out in recent years are much in agreement. The Nuffield Institute of Social Medicine, after a detailed study of these surveys/

surveys, reported as follows, "The prevalence of infection among undergraduates may be judged by the Mantoux test. Some eighty per cent react positively which is much the same as in the general community at the same age."

Here, all students who react negatively to the Mantoux test are offered B.C.G. vaccination. Of thirty-seven negative reactors, thirty asked for vaccination. This was carried out without incident and all were found Mantoux-positive when retested eight weeks after vaccination. A follow-up Mantoux test was carried out one year after vaccination. Two of the thirty students were found then to have reverted to the Mantoux-negative state. A second vaccination with B.C.G. brought about a return to positive reaction to the Mantoux test.

My own experience of B.C.G. vaccination is far too limited to justify any criticism of it as a means of inducing immunity to tuberculosis. But it is worth drawing attention to some views expressed in recent literature on the subject. Partenheimer (New Eng.J.Med. 245,496) argues that although the mortality from tuberculosis has fallen in a number of countries, there is no scientific proof that the fall is due to B.C.G. In some of these countries, notably Iceland, where the fall has been very great, B.C.G. has not been used at all.

Myers/

Myers (J.Amer.Med.Ass.,146,1492) also attacks Scandinavian claims anent the value of B.C.G. To illustrate his thesis of the comparable risk of tuberculin-positive and tuberculin-negative subjects, he exemplified 160 tuberculin-positive medical students and 145 students tuberculin-negative on entry who later became positive. Of the former group, 3.1% developed reinfection lesions, and of the latter group 9.6% developed demonstrable lesions. But when the 9.6% of students were analysed further, 6.2% were regarded as primary complexes and pleurisy and only 3.4% as reinfection lesions, a figure similar to the 3.1% of the first group.

This, however, is not the place for a detailed examination of this subject; that would call for consideration of a great many factors. Perhaps we can leave the subject in the words of Parish, (Brit.Med.Jour. 1010, 1952) who remarks, "It is noteworthy that in the attack on tuberculosis 'fundamental control measures' have often produced considerable falls in mortality without any part being played by B.C.G. At best, B.C.G. must be regarded as an adjunct to, and not as a substitute for, precautions introduced to prevent frequent or massive exposure to infection. Unfortunately in many countries today the injection of B.C.G. is the only measure of control which is practicable."

4. Student Tuberculosis Centre.

It is not within the scope of this thesis to examine in detail the treatment of students found to be suffering from tuberculosis but the proposed Student Tuberculosis Centre merits consideration. I can only briefly review the salient facts of the story.

In 1946, the British Medical Students' Association sent delegates to examine the methods by which the university authorities in France and Switzerland were attempting to deal with the problem of tuberculosis among students. At that time the high incidence of tuberculosis among continental students was causing some anxiety, yet the French Students' Sanatorium Scheme was not a measure hastily organised to deal with post-war conditions, having been in existence since 1934.

By 1946, annual chest radiography was compulsory in France for all students under thirty. For any student developing tuberculosis, facilities for sanatorium treatment are made available to him under the Tuberculosis Scheme. Treatment commences at one of the 'pre-cure' centres where, with the patient at complete bed-rest, a full preliminary investigation is undertaken.

From the 'pre-cure', students go on to special student sanatoria, of which the best known is probably the 'Sanatorium des Etudiants de France' at St. Hilaire de Touvet, near Grenoble. There medical, or/

or when necessary, surgical treatment go hand-in-hand with a resumption of studies. Study is not merely encouraged, it is obligatory as soon as the student's condition permits. A full-time Director of Studies acts in liaison with the physician in charge and together they prescribe the exact amount of study to be done by each student-patient. Formal lectures are given by members of the staff of nearby universities. The rate of academic progress is naturally slower than that of normal students but nevertheless some fifty per cent of students achieve a satisfactory examination standard. After completing the sanatorium phase of treatment, students go on to post-cure centres, at Paris, Grenoble and elsewhere. There, though still under observation, they are allowed a longer working day and prepare generally for a return to normal life. This phase normally occupies some six to ten months. After discharge from the 'post-cure' centres, students remain under observation in their own universities until graduation, sometimes even longer, with employment bureaux and similar agencies assisting when necessary. That is a very brief outline of what has apparently proved a highly successful scheme. It certainly impressed the delegates from the British Medical Students' Association and they, along with representatives of two other student organisations, formed a co-ordinating committee to consider/

consider student health in Britain in general and the problem of tuberculosis in particular. Other bodies such as the University Vice-Chancellors' and Principals' Committee and the National Association for the Prevention of Tuberculosis lent their support, but the major credit for the scheme now taking shape in this country belongs to the students themselves who initiated it.

By their efforts more than £20,000 has been raised to establish and equip a Student Tuberculosis Centre in this country. Two years ago, a British Student Tuberculosis Foundation was brought into being to co-ordinate the activities of student and other interested organisations and to act as trustees for the project. After very careful consideration of the many factors involved, this Foundation reached the conclusion that the interests of students in this country would best be met by providing for them an institution on the lines of the continental post-cure centres. That is what is envisaged in the British Student Tuberculosis Centre now being planned.

Many details have still to be settled, however, and in the meantime, as an experimental forerunner of the proposed Tuberculosis Centre, a small 15-bed unit has been reserved for the use of students in Pinewood Hospital, Berkshire, by courtesy of the North West Metropolitan Regional Hospital Board. Any male student has right of entry to this unit, without consideration/

consideration of race, creed or colour, provided only he has reached the appropriate phase of treatment as certified by the doctors in charge of him. Here, it is hoped, convalescence in health will proceed along with a resumption of studies, physicians and teachers acting in concert to meet the requirements of individual students. I myself have not yet had occasion to apply for a student to be admitted to Pinewood. But the establishment of a unit of this nature marks a beginning and the experiment will be closely watched while plans for the larger Tuberculosis Centre are being brought to maturity.

5. General Considerations.

From a study of the foregoing, certain conclusions emerge.

1. Tuberculosis morbidity rates in university students, as estimated from mass radiography surveys, show no significant difference from those obtaining in people of the same age group in Service or civilian occupations. As it affects all undergraduates, the tuberculosis morbidity rate is at present in the region of seven per thousand; that is in every thousand students, seven will be found requiring at least clinical observation on account of radiological signs of pulmonary tuberculosis.
2. For the country as a whole, at any one time, at least two students per thousand are in need of sanatorium treatment. There is reason to believe that the figure is/

is nearer three per thousand.

3. Tuberculosis is seldom a fatal disease in students.

The ratio between mortality and morbidity is much lower in undergraduates than in people of the same age group throughout the general population. This, however, reflects a trend that applies generally to the higher social classes.

4. The prevalence of tuberculosis infection in students can be estimated by the Mantoux tuberculin test.

Some eighty per cent react positively as do people of the same age in the general community.

5. Some universities have reported conditions other than tuberculosis as the chief cause of prolonged absence among their students. Here in the Dundee side of St. Andrews University, during the four years from 1948 to 1952, tuberculosis has accounted for more than half the total number of cases of prolonged absence from classes in students.

6. There is no conclusive evidence that pulmonary tuberculosis constitutes a special occupational hazard for university students. A danger does exist but it appears to be much the same at present for students as for other young adults. There is recognised, however, an additional risk to medical students during the period of their clinical training, this constituting a separate problem.

When I first heard the subject of tuberculosis debated at a conference on student health, there seemed

a sharp division of opinion as to the extent and seriousness of the problem. There were those, probably in the majority, who took the view that tuberculosis in students was indeed a serious problem and one calling for special measures with regard to detection, segregation and treatment. Others took the view that by adopting a few commonsense measures, on a compulsory basis if necessary, any problem that existed would very largely be solved.

The vexed question of compulsion almost took up a debate to itself but it is interesting to note that annual chest X-ray is now obligatory for students in many universities.

I think there is no great problem attaching to the detection and control of individual students suffering from tuberculosis. American workers go a stage further and their view now is 'tuberculosis has no place in the campus.' That is less easily achieved.

But it seems to me that control of tuberculosis in its communal aspects must ultimately depend on adequate care of the individual. That implies early detection and proper treatment of the disease when it is present, effective protection of the rest of the community. As far as university students are concerned, measures that can usefully be adopted have already been discussed; it remains only to summarise.

Medical/

Medical examination at entry, and at regular intervals throughout a student's career, is advisable. Here, large film chest X-ray is always part of that examination. If either clinical or X-ray examination raises any suspicion of tuberculosis, further investigation in the way of blood count, blood sedimentation rate, gastric lavage etc. has to be undertaken. Several of our cases have been discovered at this initial examination, with the student quite unaware of any trouble.

Miniature chest radiography is at present the sheet-anchor of any university campaign against tuberculosis. In many universities it is now obligatory for all students, in some of them, annually. The measure is not fool-proof and possibly the very early case may be missed on occasion. There may be some truth too in the assertion that mass radiography can engender a false sense of security in the medical officer and, on the other hand, much unnecessary worry on the part of students who have to be recalled for large film examination. Probably the latter factor is exaggerated. I personally would urge miniature radiography as a routine measure in all universities; the frequency of examination is a matter for the individual university to determine. So also is the question of compulsion but the voluntary basis leaves a loophole for known or suspect cases to absent themselves thereby lessening the/

the public health value of the measure. My own recommendation has been compulsory attendance annually for every student. In this I have the support of the Students' Representative Council but not, so far, of the University Court.

Opinion is now favouring the extended use of the Mantoux tuberculin test for controlling tuberculosis in any community. A recent survey in this country showed that from 20 to 25 per cent of the population is still Mantoux-negative at the age of 17, and that Mantoux conversion is common between the ages of 18 and 23. Work in the universities has shown that among entrant students there is a fairly constant figure of about 20 per cent non-reactors. "It has been the constant finding of all who have investigated the point that the greatest morbidity from tuberculosis is among those who enter areas of infection in a tuberculin-negative state, and although in general terms the adult reacts to a primary infection in very much the same way as a child, many young adults show surprisingly little power of resistance and develop progressive forms of the disease within a relatively short period of becoming infected." (Cameron, Nuffield Conference on Student Health, 1949). A student health scheme, therefore, has to aim at sorting out the negative from the positive reactors. Those in the latter group have presumably, in the absence of any signs of disease, overcome a primary infection/

infection and developed a degree of active immunity. The former have not been put to the test and their reaction to infection when they do meet it is unknown. But it is among them that tuberculosis morbidity is likely to be heaviest. Ideally, therefore, tuberculin testing should form part of the initial examination of every student. Most authorities think it safe, in the absence of detectable disease, to leave positive reactors to regular chest radiography. Negative reactors should be given B.C.G. vaccine, the value of which seems to be generally accepted. If it does not eliminate entirely the danger of tuberculosis in later life, it seems to lessen the danger of the primary infection and it must now be accepted as an essential part of the programme.

The measures enumerated above, while aimed primarily at controlling the disease within the community, should also ensure the detection of early morbid changes in any individual. Appropriate treatment is governed by many factors and each individual case must be considered on its own merits. I endorse the opinion that the treatment of students suffering from tuberculosis should be in the hands of people specially qualified by training and experience to deal with this disease. In Dundee, every student with detectable signs of tubercle is placed under the personal supervision of the senior chest physician for this region, and he accepts complete responsibility for treatment. Several of the larger universities have reported/

reported occasional difficulty in securing sanatorium accommodation for students in need of it. That has not been our experience in Dundee where, thanks to the good offices of the regional authorities, sanatorium accommodation has always been made immediately available for students. In the future, the Student Tuberculosis Centre may have a valuable part to play.

Conclusion.

The control of tuberculosis is one of the major social problems of our time; this section has merely considered a few factors applicable to one small section of the community.

As has been shown, a certain incidence of tuberculous morbidity must be expected among university students at the present time. A student health service has opportunities both for attack and defence in the campaign against this disease. By utilising the powerful weapons of regular medical and radiological examination for the detection of the early lesion, it can attack the disease by appropriate therapy in this its most vulnerable phase. In defence, it can discover the susceptibles among students entering the university and offer them a valuable measure of protection.

It must be remembered that tuberculosis is a social disease or, at any rate, one influenced by many factors. Economic, dietetic, social and possibly psychological factors play a part in its incidence.

The/

The student is a young worker who requires an abundance of certain dietary elements, not always easy to get, and he also needs, in its broadest sense, careful social supervision. The welfare service of a university, as distinct from the professional activities of the health service, has a vital part to play.

But the health service is charged with the main responsibility in this matter and requires a planned programme to meet it. Regular medical and radiological examination, Mantoux testing of all students and B.C.G. vaccination of the negative-reactors, early and adequate treatment of the discovered case are the essential parts of the programme.

I have intimate first-hand knowledge of the student health service at several universities; with many others I have a fairly good idea of the general organisation. At present, university health services fall into two main categories according as to whether or not they accept responsibility for treatment of students during illness as well as carrying out routine medical examinations in health. The health services which undertake treatment during illness are now so definitely in the majority that their's is the only type that need be considered. The number of medical officers employed, whether they work on a whole-time or part-time basis, whether they rank as specialists or generalists, these are minor points which should not be allowed to cloud the main issue/

Section 8.

Student Health Services.

Establishment, Liaison etc., Conclusion.

1. Establishment.

It was my original intention to include a section on the organisation and establishment of a student health service and to contrast the types that have been evolved by different universities. The latter part of the intention seems no longer necessary or can be served by very brief comment.

I have intimate, first-hand acquaintance with the student health service of several British universities; with many others I have a fairly good idea of the general organisation. At present, university health services fall into two main categories according as to whether or not they accept responsibility for treatment of students during illness as well as carrying out routine medical examination in health. The health services which undertake treatment during illness are now so definitely in the majority that their's is the only type that need be considered. The number of medical officers employed, whether they work on a whole-time or part-time basis, whether they rank as specialists or otherwise, these are minor points which should not be allowed to cloud the main issue/

issue - the physical and mental welfare of the student community.

The diagram on the following page sets out the organisation and establishment of the student health service in my own university, with reference mainly to the work carried on in Dundee. The geographical division of this university into two distinct and separate halves has imposed certain modifications. But apart from these, the organisation here, our liaison with professional and other university departments are on the same lines as in other universities in this country. The diagram merely outlines the general scheme, certain points require elaboration.

2. Duties of Medical Officer.

When a university health service undertakes the care of students in illness as well as their routine examination in health, the medical officer's list of duties is not only extensive but varied.

He has charge of all medical examinations, at entry or subsequently during the student's career. If abnormality is discovered, the appropriate treatment has to be undertaken or arranged. In doubtful cases, lengthy and complicated investigation may be required before a decision can be given as to the seriousness or otherwise of the condition. It must be remembered that the expressed purpose of medical examination is not to pass an individual fit or to reject him according to/

University Court

Medical Guidance Committee

Medical Officers (2)

Liaison

Duties

Medical examinations
Medical treatment
Records and research
Mass X-ray surveys
Health Officer
Administration

1. Professional

Medicine.....Professor of Medicine. Private appt.system
Surgery....." " Surgery " " "
Orthopaedics)
Dermatology)
E.N.T.)
Gynaecology).....Senior Consultant. " " "
Ven.Diseases)
Psychiatry)
Diseases of)
the Chest and).....Senior Chest Physician. Thoracic Surgery Unit
Tuberculosis)
EyesConsultants via Suppl.Ophthalmic Service
Clin.Pathology)
X-rays)....Direct reference to Dept. (Not available to
Physiotherapy) local practitioners).
Bacteriology)

2. National Health Service.

Local Medical Committee - Local Executive Council.

3. Student Organisations.

Students' Representative Council.
Athletic Union Governing Board (member).
Tours Committee (member).
Gymnasium and Recreation Park Committee (chairman)

4. University Departments.

Principals of Colleges.
Heads of Departments.
Wardens of Hostels re diet, isolation, hygiene etc.
Appointments Board.
Association of University Teachers (member).

to any arbitrary standards, but to discover disease or abnormality if it exists, in the earliest phase when treatment is most likely to be of value. That implies careful examination and, on occasion, prolonged investigation. When examination does reveal abnormality for which treatment is necessary or advisable, subsequent action here depends on whether or not the student concerned is registered with me for National Health purposes. If he is domiciled locally, any abnormality found at examination is reported to his family doctor on whom further decision rests. In many cases, particularly when the treatment involves attendance at or admission to hospital, the family doctor requests the student health service to make the required arrangements. When the student is from outside Dundee and on my own list of patients, responsibility for investigation and treatment is mine entirely.

If the university service is one accepting responsibility for the care of students during illness, the medical officer has to provide general medical services for all entitled students. He acts as a general practitioner as far as such students are concerned. The term is not used in any derogatory sense; despite adverse criticism from many quarters, general practitioners have played a not unworthy part as first-line troops in the nation's health service. But with all respect due to them, and without reference/

reference to the standard of treatment provided, few general practitioners can give the personal and individual type of attention that students now expect. The university medical officer has to be available for consultation at convenient times during the students' working day. He has to include in his daily round a visit to each of the university halls of residence. I have already mentioned the 'problem' students who may take up to an hour for a consultation. Again many students at university are away from their own homes and their own people; if they take ill, parents, teachers and university departments all have to be notified and kept informed of progress. These are all time-consuming duties.

Whether the medical officer should be employed on a whole-time or on a part-time basis, depends largely on local circumstances. Nearly all the larger universities now have at least one whole-time medical officer and often one or more part-time assistants according to the number of students to be attended. That is analogous to the position here, where there is one full-time medical officer in each half of the university, with various consultants giving their services whenever required.

It has been debated many times whether or not the medical officer himself should be of consultant status. It is doubtful if a specialist in any subject ever obtains the best view of a human being. The best thing/

thing a university medical officer can specialise in is "student health." In most universities the health service has developed to a stage where at least one full-time doctor is required. If, as is usually the case, all the facilities of a medical teaching centre are at hand, and consultants in every department available whenever required, there would seem room for any competent general physician, of the requisite judgment and experience, as full-time medical officer.

once In universities where medical teaching is associated with one particular hospital, the medical officer of the student health service has, in some cases, a few beds or a small ward at his disposal there, reserved entirely for student patients. Such health services as have adopted this system were all in operation prior to the passing of the National Health Service Acts. When I assumed my present appointment these Acts were already in force and allocation of hospital beds was in the hands of Boards of Management and Regional Hospital Boards. It was clear then that hospital beds reserved exclusively for the use of students was to be a thing of the past.

exam It is open to question, however, whether it is altogether wise for the university medical officer to retain charge of students once they have been admitted to hospital. By so doing, it is argued, continuity of treatment is assured and the physician benefits from his knowledge of the patient in health. These points are conceded/

conceded. But the system adopted here, where there are no hospital beds at our disposal, has been found by experience to work very smoothly and probably serves the interests of the patient as well as any. In two of the university hostels, sick-bay accommodation is provided. I can command the services of local laboratories for any tests or investigations considered necessary. If it is decided to remove a student to hospital, his admission is arranged with no difficulty whatsoever and once there he is in the charge of the professorial unit, or in certain departments, of the senior member of staff. These arrangements work irrespective of 'waiting-days' or similar considerations. The system works very satisfactorily, there is a full interchange of relevant information between all concerned, and every doctor in the case knows exactly his own sphere of activity.

The nature and amount of research work to be undertaken by a student health service depends to some extent on the inclinations of the medical officer concerned and also on the nature of his other duties, but even the 'comprehensive' type of health service, undertaking treatment of students as well as medical examination, is expected to submit to the university authorities an annual report reviewing the work done in the preceding academic year. It is to be hoped these reports are of some value. They are based on accurate observation and carefully kept records, and on some points present the university authorities with information not/

not available from any other sources; to central research and statistical institutes they supply the material for further research on the widest possible basis. In certain universities, the health services are fortunate in having the facilities of a statistical department at their disposal. There is an enormous saving in time and labour when punch-card tabulation and mechanical sorting can be used in place of laborious, manual methods.

Most universities now insist on regular miniature chest X-ray examination of all students. Arrangements for these surveys usually fall to be made by the medical officer. The system in this university is that a time-table is first drawn up in collaboration with the mass radiography unit. Every student is then notified in writing and given an exact time - to the minute- and date for his attendance. The X-ray unit then takes charge of the actual radiography and is responsible for recalling students for whom large film or clinical examination is deemed advisable. At the conclusion of the survey, each student is informed of the result of his or her examination and, contrary to usual practice, the student health service is notified of the findings in each case.

In one or two of the larger universities, I think Edinburgh introduced the scheme, a Health Officer is included in the personnel of the student health service/

service. His duties are the general supervision of hygiene throughout the university, liaison between the different departments concerned with student welfare and the advising of students on health problems not involving medical treatment in the ordinary sense. The idea has much to commend it. In the smaller universities, the medical officer combines these additional duties with his ordinary professional ones and he is adviser to the university authorities on all matters touching students' health or their physical welfare.

Even in a small university, the routine administration of the health service takes up considerable time and correspondence to be dealt with tends to be varied and heavy. The medical officer is useful as a staff representative on many university and college committees which administer or advise on athletics, physical education and student activities of similar nature. It is entirely proper, and indeed part of his duty, that the medical officer serve the university in this way and the work provides useful contacts with student organisations.

One final aspect of the medical officer's duties deserves mention. Students seem to regard him as a member of the university staff yet in a quite different category from members of the teaching staff. His advice is often requested, by individual students or student organisations, on a variety of problems some of/

of them anything but medical in nature. These, in my own experience, have ranged from choosing a dinner menu to writing a letter breaking off an engagement to marry. On another occasion we arranged the admission to another university of a young girl student who, under rather tragic circumstances, gave birth to an illegitimate child while residing in one of the halls of residence. That, however, is a long story; enough has been written already to show there is no lack of variety in the work of a university medical officer.

3. Liaison.

The diagram at the beginning of this section indicates the various organisations and departments, professional and otherwise, with whom a student health service must maintain contact. They fall into four major groups. Some have already been discussed in their appropriate context; a brief word on each will be enough to summarise the main points.

(1) Professional.

If the aim is a comprehensive health service, there must be adequate contacts with specialists and consultants in all departments and unrestricted approach to X-ray, physiotherapy and laboratory services. When the student health service was started in this university there were no contacts of any kind. Every consultant and every department had to be approached separately, the new service and its function explained, and their co-operation requested. In most cases that co-operation was/

was granted in the most unstinted way. Although any consultant can be called upon when required, one in each department or one particular unit in local hospitals has come to be looked on now as the one to deal with all cases referred by the student health service. With most a private appointment system operates for the benefit of students. General practitioners in this city have no direct access to hospital laboratories, X-ray or physiotherapy departments. They may only refer cases to out-patient clinics where the doctor in charge decides what investigations are required. The medical officer of the student health service, however, has the status of a member of the hospital staff and may make use of any department. This is a most valued privilege and ensures a great saving of time to medical officer and students alike.

(11) National Health Service. Arrangements for accepting students as registered patients have already been explained. I personally take the view that a 'student' health service must try to fit itself into the framework of the larger 'national' service and make available to students the benefits that both can confer. Indeed there is little option in the matter now; most students are well aware of what the National Health Service offers them, in their case without payment of any weekly contribution. In one respect we are at a disadvantage as compared with/

with local practitioners in that only students fulfilling certain residential qualifications can register with the student health service here as National Health Service patients.

(iii) Student Organisations.

As Medical Officer to the Dundee side of this university, I have been nominated or elected to membership of the Athletic Union Governing Board, the Tours Committee thereof and the Recreation Park and Gymnasium Committee. Students sit on all these committees and can air their views on matters many of which touch on the wider aspects of student health. Now and again very helpful suggestions are put forward.

In this university students have no representatives on the Medical Guidance Committee. This committee is one responsible directly to the University Court, its members drawn from the Senatus with a few representatives from the Court itself. An informal edition of the main committee sits in Dundee - it too is without student representation and consists of the Principal of University College, Dundee, and two senior members of the staff of the Medical School.

There is at present before Parliament a Bill dealing with university education in St. Andrews and Dundee. Certain far-reaching changes are impending which make it unwise at this stage to attempt any forecast of events. Before the recent Royal Commission issued its report, there was a proposal afoot to set up/

up a Student Welfare Committee in the university. Its function was to have been the co-ordination of the activities of all committees, as at present constituted, which are concerned in any way with the health or physical welfare of the students. The Student Health Service as such, however, was to be specifically excluded from the jurisdiction of this proposed committee, and the present Medical Guidance Committee retained as the sole body exercising control on behalf of the University Court.

Neither in the present constitution of the university, therefore, nor in the proposed one, are the students themselves given much say in matters connected with, what is after all, their own health service. It was undoubtedly pressure from the various student organisations within the university that brought the health service into being. I think, therefore, they should be allowed some voice in its function. The Students' Representative Council is a powerful enough body but on student health matters, its recommendations can reach the Medical Guidance Committee only by very devious channels. I am not advocating student representatives on the Medical Guidance Committee itself; much of its business concerns matters of staff and policy on which it would be a very invidious task for students to pronounce an opinion. But some aspects of the work of the student health service are of importance to students and no one else and their opinion is the only one that matters/

matters. For this reason, closer liaison between Medical Guidance Committee and Students' Representative Council is obviously desirable.

(iv) University Departments.

Certain universities have evolved a very efficient type of student welfare service with one department and specially trained personnel undertaking all the manifold duties that come within this category.

There is a wide list of such duties - supervision of student lodgings, liaison with teachers and parents, contacts with embassies and consulates on behalf of foreign students - these are but examples.

St. Andrews University has not, so far, found it necessary to organise a department of this nature. That is not to imply that student welfare is in any way neglected. This is a small university. In St. Andrews some eighty per cent of all students reside in university hostels, in Dundee between thirty and forty per cent.

This is the only Scottish university with the collegiate system, and within that system every senior member of staff acts as 'regent' or personal adviser to two or three students. Also, in many subjects, classes are small and relations between teacher and students much more personal than is possible in the bigger universities. There is no barrier, therefore, between students and authorities; if a student is in difficulties a friendly and personal approach is encouraged/

encouraged and the help of any department, my own included, is at his disposal. Student welfare has lost nothing by being a general obligation in the university rather than one attaching to a particular department.

My earliest contacts with teaching and administrative departments here, usually concerned some matter touching the welfare of a particular student in my medical charge at the time. Anything I requested was invariably given sympathetic consideration. The work of my department also involves close association with the wardens of the various hostels, not only in the routine of medical attention to students but in other matters effecting their interests. I have never had to suffer any qualms of conscience in bringing the private or personal affairs of students to the notice of members of staff; all of these from the Vice-Chancellor downwards appreciate that my relationship with students is a professional one and respect any communication from me as privileged and confidential.

Recognition of the Student Health Service itself, as a separate and distinct department within the university, has been a plant of slower growth. Indeed it would be idle to pretend that teaching departments yet concede it the status that they themselves enjoy. Tradition dies hard in this ancient university and with it the view that the intellectual welfare of students is all that matters. If the body politic requires non-teaching and administrative ancillaries/

ancillaries, let them function unobtrusively and in becoming obscurity. That is not a majority view, by any means, but traces of it exist.

But, if it is to discharge its function properly, a student health service must work in collaboration with other university departments. Principals, professors and heads of departments now invoke the assistance of the health service whenever the welfare of individual students requires it; they are beginning to consult the health service on matters concerning the welfare of the student community generally.

Mass radiography of students during working hours requires the sanction of the Board of Studies; it has subsequently asked information on certain other aspects of tuberculosis in students. I was recently asked by the local branch of the Association of University Teachers to give an address on the subject of student health. These are small incidents in themselves yet they point to a growing influence of the Student Health Service in the university and a better appreciation of its aims. There is yet a great deal to be done but signs for the future are not discouraging.

4. Conclusion.

In this thesis I have considered several factors which have a bearing on the health of university students, and by contrasting experience in different universities, have indicated standards or indices by which some aspects/

aspects of health and sickness in a student community may be measured. On certain topics discussed there is room for wide variation in personal opinion; others have been mentioned in order to give a comprehensive picture of student health work in general. There follows in the second part of the thesis, a series of reports dealing with the work of my own health service and giving the factual data on which certain inferences are based.

There has been no attempt, however, or certainly no intention to glorify the work of student health services, either in general or in particular, or to exaggerate their value to the community they serve. Indeed the question must be faced, "Are student health services worthwhile?" I am much too closely concerned with the subject to be able to view that question objectively; only those students who make use of the health service of their own university can estimate its efficiency and value to themselves. But some aspects of the question are not greatly affected by personal considerations and can be discussed in fairly general terms.

It would be unfair to reduce the question to one of simple economics - "Does a student health service give a university value for money?" Here in St. Andrews, the cost of the health service exceeds £4000 per annum. That sum represents something like £2 a year for every undergraduate student; when estimated in terms of the numbers/

numbers making use of the service the figure is nearer £4 per student. That becomes a formidable sum in the budget of a smallish university. It is true that certain departments require a comparable sum for the tuition of a handful of students but these departments can retort that the function of a university is to teach students, not to treat their ailments.

Some Government departments have taken the line that students are not to be looked on as a privileged section of the community nor given preferential treatment in medical or any other matters. I think a university health service does confer certain privileges on students and offers them facilities not available to the general public. But is there any reason against that? Students are a privileged section of the community, they are so by selection and by the educational opportunity offered them. Much public money is spent in their interest - a relatively small outlay to ensure their health seems more like economy than extravagance.

Within the university itself, the student health service is regarded by some as a costly and superfluous luxury, by others as an essential and highly useful department. There is a third body of opinion not very interested either way. Those in the first category, remembering that the avowed object of the National Health Service was to make every form of medical treatment/

treatment available without charge to every member of the community, question the need for a separate service, within the larger one, to meet the requirements of a small and already privileged section of the community. The answer can only be that the armed services, the schools and even small industrial concerns all find it advisable to maintain their separate medical organisations.

But there are wider issues involved to which there is no ready answer. "Do the students themselves derive any benefit by having their own health service?" Benefits there certainly are. The student is offered regular, medical examination in health, he has ready access to medical advice at all times, to attention in illness and to the best available specialist or hospital treatment whenever necessary. No aspect of a student's health is neglected; is it possible, however, that there can be a danger in over-attention? Can access to medical advice be made too easy and abnormality over-investigated to the detriment of the mental, if not to the physical, welfare of the individual concerned?

That is not an easy question to answer. Like any other human agency, a university health service is not infallible and the danger of over-investigation should not be dismissed altogether. I can look back now on several instances in the early days of my work here when the remark "there is nothing wrong with you" should have been addressed to a student at the conclusion of/

of a very brief examination instead of after a lengthy and elaborate investigation. But the decision is not always an easy one to make. Though at first interview with a student, the medical officer may feel that only reassurance is required and not investigation, and though he may be quite prepared to back his judgment in the matter, the modern student can occasionally be difficult to convince without radiological or laboratory proof. Medical students are the chief sinners in this respect and seem brought up to distrust clinical judgment. But it is only fair to add that such students are the exception rather than the rule and that by far the majority use the health service in a thoroughly sensible manner to obtain advice and guidance on matters concerning their health and benefit thereby.

Again, there is some truth in the criticism that a university health service offers the student little he could not obtain from his family doctor or from any general practitioner in the ordinary way. Routine medical examination is a useful measure but in the age group with which we are concerned, abnormality unknown to the examinee is not commonly discovered. It could be argued then that in the majority of cases, examination achieves nothing of any positive value. Also the honest physician has to admit that the earliest signs of certain disease will escape the most meticulous clinical examination.

As regards medical attendance in connection with the/

the common medical and surgical conditions of daily occurrence, the student will be served more promptly by the university health service, and with less inconvenience to himself, than by any outside practitioner. That does not imply any difference in the standard of treatment though the student may benefit from the medical officer's connection with other departments in the university. 'Problem students' certainly find it advantageous and can make demands on a health service that could not be imposed on any private practitioner. On the latter point alone, university health services have done much to justify their existence.

No argument advanced so far can have done much to convince a reader that a student health service is necessary to a university. But there is another and final consideration. By a changing social order, the whole range of treatment and every diagnostic aid that modern medicine and surgery can offer, are at the disposal of every individual in the community irrespective of his or her means, only the State has to consider the cost. To the working-class, and probably to the middle-class more than any other, the gain has been immeasurable and doctors' bills and the fear of them are things of the past. Yet many will concede that in the transition, medicine as a profession has lost something of value. Financial reward is not the only consideration in medicine. A profession built on intimate human and personal relationships does/

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does not lend itself easily to administration by boards of management, executive councils and a host of both lay and professional officials.

In a university health service, patients and doctors are still human beings and not numbered units. Relations are courteous, personal and friendly and everything is subjected to the paramount consideration, the welfare of the patient with all the term implies. Medicine is practised according to an older ethic without even the drawback of payment that attached to the old system. It can be 'private' practice in the best sense. If a student health service is keeping alive that tradition, and if its primary aim is the health of a community, would any one deny it a place in a university where the doctors of the future are being trained?

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UNIVERSITY OF ST. ANDREWS

Indices of Health and Sickness

in

STUDENT HEALTH SERVICE

University Students

....

FIRST PART

Second Part

Part Two

Annual Reports, Student Health Service

University of St. Andrews

Senior Medical St. Andrews University

(in Dundee)

1948 - 1952

1. General Review and Summary of the Service

2. Survey of Work

3. Appendices.

4. Glossary

5. Bibliography

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7. List of Figures

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UNIVERSITY OF ST. ANDREWS

(in Dundee)

STUDENT HEALTH SERVICE

First Annual Report. Academic Year 1948 - 49.

University College, Dundee,

Senior Medical and Dental Schools, Dundee.

First Annual Report

Academic Year 1948 - 49

1. General Review and Summary of Figures for Attendance,
Medical Examination, etc.

2. Report on

1) Accommodation and Equipment.

University College, Dundee,

2) Routine Health Examinations.

Senior Medical and Dental Schools, Dundee.

3) Records.

4) National Health Contents.

5) Supplementary Ophthalmic Service.

1. General Review and Summary of Figures.

2) Chest Radiography.

2. Survey of Work done, Report and Comments.

3) Laboratory and X-Ray Facilities.

3. Appendices.

4) Diet Studies.

5) Psychiatry.

6) Athletics.

7) Liaison.

8) Student Health Conference.

9) Conclusion.

10. Appendices.

1. Details of Medical Examination findings, attendances
etc.

2. Dietary Intake of Students in Dundee.

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A. General Review and Summary of Figures for Attendance, Medical Examination, etc.

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- 1) Accommodation and Equipment.
- 2) Routine Health Examinations.
- 3) Records.
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- 5) Supplementary Ophthalmic Service.
- 6) Chest Radiography.
- 7) Laboratory and X-Ray Facilities.
- 8) Diet Studies.
- 9) Psychiatry.
- 10) Athletics.
- 11) Liaison.
- 12) Student Health Conference.
- 13) Conclusion.

C. Appendices.

1. Details of Medical Examination findings, attendances etc.
 2. Dietary Intake of Students in Dundee.
-

STUDENT HEALTH SERVICE

St. Andrews University

(in Dundee)

First Annual Report. Academic Year 1948-49.

This Report reviews the work in Dundee of the Student Health Service, St. Andrews University, during the academic year 1948-49 - its first year in operation.

During the period 267 students attended for examination and/or treatment. These were drawn from the various faculties as under -

| | | |
|-------|-------------------------|-----|
| Men | Medical and Dental | 102 |
| | Science and Engineering | 89 |
| | Arts and Law | 12 |
| Women | All Faculties | 64 |

Attendances made during the year totalled 1147

| | |
|----------------------|-----|
| At Consulting Room | 943 |
| In Quarters | 118 |
| Routine Examinations | 86 |

86 students attended voluntarily for full routine medical examination which includes X-ray of the chest, 36 (43.3%) of these were found to require advice or treatment concerning their health. The examination findings with regard to bodily measurements, haemoglobin levels etc. are recorded separately and are not included in this Report.

The Student Health Service has been approved under the National Health Service scheme and 121 students have registered with it as National Health Insurance patients.

The impression gained from observation of the students using the Health Service, is that the general standard/

standard of health is fairly satisfactory and that most students regularly engage in some form of athletic activity.

The remainder of the Report comments on certain aspects of the work of the Health Service and analyses certain examination findings.

.....

Initial surgical and medical equipment for the Service was provided by the University Court, and furniture, office equipment etc. by the Council, University College. A few items of equipment are still outstanding but apart from these, future recurring expenditures should be limited to:-

1. Drugs, dressings, pharmaceutical etc. supplies.
2. Upkeep of present equipment and replacement of expendable material.
3. Medical Books and Journals. There is an increasing number of these which have bearing on student health problems. A few might be of more value here than in the general library.

Routine Health Examinations.

The instruction of the University Court was that routine medical examination was to be optional and carried out only at the request of the student. On this voluntary basis 85 students presented themselves for examination. The figure is modified by certain factors. A high proportion of those examined consisted of first-year students mainly from homes outside Dundee. If the habit of medical examination on entry continues to grow, before very long most of

Accommodation and Equipment.

The Student Health Service made its start in temporary quarters allotted at 15 Airlie Place. The reconstruction of University College Hall will probably involve removal to new quarters at 5 Airlie Terrace. These are commodious and central and it is hoped to have the move completed by the start of next academic year.

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Routine Health Examinations.

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the residential students will have been recorded in the Health Service. Secondly the 86 refers only to students who came to request full medical examination. In many other cases reporting for treatment opportunity was taken to make a thorough examination and to record the findings.

Of the 86 examined 35 (41%) were found to require advice or treatment concerning their health. This figure seems unduly high but is partly explained by the fact that in many of the early examinations the immediate purpose of those concerned was to obtain advice about some known ailment or disability.

The classification of those examined on a basis of physical efficiency is shown later in this Report.

Records.

The Medical Record Card at present in use here was designed jointly by the two Medical Officers of the University Health Service. Part 1 is in the form of a questionnaire on past medical history completed by the student, Part 2 is the record of the Medical Officer's examination findings. Students are graded in respect of their physical condition but the classification is admittedly an arbitrary one and the criteria adopted probably vary with the individual examiner.

The Institute of Social Medicine, Oxford, the Nuffield Foundation and several other bodies are now taking an interest in Student Health Services. A Student Health Record Form was devised with the idea that it would become standard in all British Universities and/

and so permit an annual statistical analysis to be made at some central bureau. This Record Form constitutes a very valuable and comprehensive record but the emphasis placed on social and economic circumstances has been a little resented by the students here on whom it has been tried.

This standard form uses the PULHEEM system of classification which aims at grading individuals on the basis of a general functional capacity rather than of mere physical condition. The system has been adopted throughout the medical branches of H.M. Forces and is probably an advance on any previous one. The functional interpretation of the various degrees of each quality listed in the system however, has to be related to standards originally devised to apply to the armed Services and which require some modification to be applicable to a student population. This is under consideration and it is possible a revised form may be issued in the near future.

National Health Insurance.

Under the National Health Service (Scotland) Act, 1947, a full-time university student is exempt from paying weekly contributions but retains the right to general medical services, medicines, appliances etc. free of charge. That being so, it was felt the Student Health Service here must operate within the larger National Health Service and as a part of it. Accordingly the approval of the Department of Health for Scotland was/

was obtained and the Medical Officer accepted on the list of practitioners of the Dundee Executive Council as endorsed by the Scottish Medical Practices Committee. Permission to practice was given with the proviso that only full-time University students whose permanent homes were outside Dundee, could be accepted as National Health patients. This has worked quite well and so far 121 students have their National Health registration with the Student Health Service. The number is being extended steadily as many students do not trouble to register until requiring treatment for some illness. Capitation fees in respect of these students are paid directly to the University Court.

One minor disadvantage of the restriction to students from outside Dundee is that students permanently resident in this area have to pay for their own medicines etc. when making use of the Student Health Service. This is a result of the ruling that National Health Insurance prescriptions can be issued only by the doctor with whom a patient is registered. The Local Executive Council were approached on this point but found they were unable to alter the ruling. In practice it has not caused much difficulty.

Supplementary Ophthalmic Service.

This branch of the National Health Service is unrestricted and any doctor may refer a patient to an approved consulting ophthalmologist or optician for eye examination. Advantage has been taken of this to refer 37 students to various consultants for full ophthalmic examination. 32 of these have had glasses prescribed through/

any difficulty over admission and the various consultants through the National Health Scheme. The various consultants have been very helpful and obliging in arranging appointments for students at convenient times.

Chest Radiography.

X-ray of the chest forms a part of the routine medical examination and was carried out in the case of the 86 students who reported. 80 were reported on at first examination as "Lung fields within normal limits". In four cases a second examination had to be made before this report was given and of the remaining two cases, one was passed fit after a third examination and the other finally diagnosed as a small tuberculous focus of the lung apex. This latter case was a young man of 20, with no symptoms and who felt himself perfectly fit. He is at present under close observation and fortunately the lesion appears to be stable and not advancing.

Facilities for these examinations were provided by the courtesy of Dr. D. G. McIntosh, Tuberculosis Consultant to the Eastern Regional Board, who has taken a close interest in the work and has gone to considerable trouble over it.

By next academic year, Mass Radiography methods may be available and a weekly session allotted to the Student Health Service.

Hospital Accommodation.

During the past year 18 students were admitted to hospital (Royal Infirmary 17, King's Cross 1) for treatment as in-patients. There was never at any time any/

any difficulty over admission and the various consultants have been most helpful in their dealings with the Student Health Service.

It would be an advantage if some day we could have a small Students' Ward in the Royal Infirmary here as exists in other University teaching hospitals elsewhere. It would permit of cases being admitted for observation and investigation as well as for immediate treatment, such students coming under the charge of the particular member of the Staff to whom they were referred. Doubtless the University authorities, Student Charities etc. would contribute to the provision of extra amenities for such a ward.

Laboratory and X-ray Facilities.

Normally the use of the X-ray, Pathology, Physiotherapy etc. Departments of the Dundee Royal Infirmary is restricted to members of the hospital Staff. The Board of Management however, very kindly extended the privilege to the Student Health Service and cases may be referred direct to these departments. This greatly facilitates the work of the Service and is much appreciated.

Professor Tulloch and Professor Lendrum granted similar facilities in their departments and they and their assistants have helped in every way possible.

Diet Studies.

During the last year, Dr. R. P. Cook of the Department of Biochemistry, University College, has made several/

several investigations re the dietary intake of students. Some of the results have been reported elsewhere (vide B.M.J. Oct. 16, 1948, vol. ii, p.711). A summary of the findings in a recent investigation is included as an appendix to this report. The number of students observed is not large and there is very considerable individual variation. Making due allowance for these factors, the actual figures when compared with those obtained from earlier investigations seem to show that, except with regard to animal protein, there is little significant change between present-day and pre-war dietary intake. Psychiatry.

There were encountered during the year at least three cases which came within the field of the psychiatrist. In one there was serious social maladjustment, one had previously undergone institutional treatment for psychiatric disorder and one had a background of family mental instability. Two have improved under treatment and the outlook for them is good.

Much more common than established psychiatric conditions, are those students with some psychological difficulty of varying degree, or whose somatic symptoms are but the manifestation of underlying mental tension or conflict. These seem to fall into three groups (a). Those inadequately equipped, mentally and intellectually by university standards. (b) Those older students, usually ex-service men, with financial and family/

family responsibilities to whom failure in their course would mean disaster, and (c) those individuals who react to any difficult situation by excessive worry. This classification might not be approved by a psychiatrist and may be vastly over-simplifying the case but it does form a working basis and most of these cases fall into one of these groups.

Treatment is not easy. A desire to place them under specialist psychiatric treatment conflicts with a doubt that by so doing introspection is aggravated and abnormality stressed. This admittedly begs the question as was pointed out by a leading authority in this field, the physician in charge of Student Psychiatry in a leading American university, whose advice was requested. In America however, the position is different; psychiatry has not the same associations with mental disease as in this country, and there the psychiatrist has an accepted place in the Student Health team.

There is therefore yet something of a problem to be solved - it should be neither magnified nor neglected.

Athletics.

The Medical Officer has been appointed a member of the Athletic Union Governing Board, of the Tours Committee and of the Recreation Parks and Gymnasium Committee. The association between the Health Service and student athletic activities has proved of value. There is also a close liaison between the Student Health Service/

Service and the Department of Physical Education.

Liaison.

There is a growing co-operation between the Health Service and teaching departments and students are occasionally being referred now for medical examination. Sometimes, with the consent of the student, the teacher may be notified of certain findings and a joint supervision exercised.

The parents of students sent into hospital are notified concerning admission and subsequent progress. This service seems to have been very much appreciated.

Student Health Conference.

The Trustees of the Nuffield Provincial Hospitals Trust are sponsoring a Student Health Conference to be held in Edinburgh towards the end of July. All the British universities and medical schools will be represented. Among the subjects for discussion are:-

- (i) Student Health Services in relation to the National Health Service.
- (ii) Problems arising from the incidence of tuberculosis in a student population.
- (iii) A report by the co-ordination committee on record card design.

Some of the difficulties concerning these points have been mentioned elsewhere in this Report and a Conference of this nature should help materially towards their solution.

Conclusion.

This Report comments on certain aspects of the work of the Student Health Service here during its first year/

year in operation and gives details of the number of attendances, health examination etc. These show that the Service so far has been concerned more with treatment than with routine medical examination. This seems a rather natural way for it to develop. The average, fit undergraduate tends to notice his health only when something goes wrong with it and accordingly the first reaction to the Student Health Service was to find in it a convenient means of obtaining treatment for illness or injury. It should be noted however, that as an individual continued to attend, opportunity was usually found at some time to get a full examination and record made.

The remainder of this Report analyses the examination etc. findings.

(signed) H. J. Gibson,
Medical Officer.

Of the 86 students examined, 36 were found to require some form of treatment or advice concerning their health. This was in connection with -

| | |
|-----------------|----|
| Skin Conditions | 11 |
| Orthopaedic | 9 |
| S.N.T. | 4 |
| Alimentary | 4 |
| Eyes | 4 |
| Cardiovascular | 3 |

Attendances.

APPENDIX

Routine Health Examination
and Chest X-Ray.

86 students attended for full medical examination and were graded on a basis of physical efficiency as follows -

| | | | |
|----------|--------------|----|------|
| Grade 1. | First-class | 8 | 9.3% |
| " 2. | Good average | 46 | 53.5 |
| " 3. | Low average | 23 | 26.7 |
| " 4. | Poor | 7 | 8.1 |
| " 5. | Very poor | 2 | 2.4 |

It is difficult to relate these figures to other standards. The grading is admittedly an arbitrary one and the criteria adopted would probably vary with individual examiners. Grades 1 - 3 would be accepted at normal rates for life insurance purposes. For the armed Services, under the Pulheem system of classification, Grades 1 and 2 would be rated as F E (Forward everywhere) - employable on full combatant duties in any area in any part of the world, Grades 3 and 4 as of restricted capacity and Grade 5 as unfit for any form of service.

Of the 86 students examined, 36 were found to require some form of treatment or advice concerning their health. This was in connection with -

| | |
|-----------------|----|
| Skin Conditions | 11 |
| Orthopaedic " | 9 |
| E.N.T. " | 5 |
| Alimentary " | 4 |
| Eye " | 4 |
| Cardiovasc. " | 3 |

.....

Attendances.

| | |
|----------------------|-------------|
| At Consulting Room | 943 |
| In Quarters | 118 |
| Health Examination | 86 |
| Total - All Purposes | <u>1147</u> |

The 1061 attendances for purposes of treatment were in connection with -

| | |
|--------------------------------------|-----------|
| Diseases of the Ear, Nose and Throat | 20% |
| Minor Sepsis and Minor Injury | 16 |
| Diseases of the Skin | 12 |
| " " Digestive System | 9 |
| " " Respiratory " | 8 |
| " " Eye | 8 |
| Orthopaedic Conditions | 7 |
| Psychoneurotic " | 3 |
| Cardiovascular " | 2 |
| Dental " | 1 |
| Miscellaneous " | <u>14</u> |

37 students were referred to eye specialists under 100

Supplementary Ophthalmology of the National Health

Bonews, and 32 were provided with spectacles.

E.N.T. Conditions

61 students attended for treatment for E.N.T. conditions as shown below.

| | |
|------------------------------|----|
| Wax in Ear | 7 |
| Rhinitis | 7 |
| Deviated Septum | 2 |
| Tonsillitis | 10 |
| Vallecular cyst | 1 |
| Acute pharyngitis | 12 |
| Otitis externa | 8 |
| Ruptured tympanic membrane | 2 |
| Coryza | 5 |
| Chronic granular pharyngitis | 2 |
| Chronic sinusitis | 2 |
| Eustachian catarrh | 2 |
| Suppurative otitis media | 1 |

7 of these were referred to specialists for appropriate

operative treatment. as follows -

Diseases/ appendicitis/

Eye.

• • • • •

1920-31091428

35 students attend.....ment for skin

1. diseases of

Appendicitis/

| | |
|---------------------------|---|
| Appendicitis | 4 |
| Duodenal ulcer | 2 |
| Perforated duodenal ulcer | 1 |
| Pruritis ani | 1 |
| Enterobiasis | 1 |
| Gastroenteritis | 2 |
| Intestinal colic | 3 |
| Dyspepsia | 4 |
| Constipation | 1 |
| Gastritis | 2 |
| Stomatitis | 2 |
| Diarrhoea | 1 |

.....

Orthopaedic Conditions

20 students reported for treatment for orthopaedic conditions as follows -

| | |
|--------------------------------------|---|
| Sacro-iliac sclerosis | 1 |
| Traumatic drop-foot | 1 |
| Fractured tibia | 3 |
| Osteochondritis | 1 |
| Ingrowing toe-nail | 1 |
| Arthritis | 3 |
| Flat-foot | 2 |
| Contusion of shoulder | 1 |
| Clawfoot | 1 |
| Calcaneal spur | 2 |
| Traumatic torticollis | 1 |
| Muscular atrophy | 1 |
| Teno-synovitis | 1 |
| Recurrent dislocation of shoulder | 1 |

.....

Diseases of the Skin.

35 students attended for treatment for skin conditions as follows -

| | |
|---------------------------------|---|
| Acne | 6 |
| Furunculosis | 2 |
| Tinea cruris | 3 |
| Eczema | 2 |
| Epidermophytosis | 4 |
| Verruca vulgaris | 3 |
| Lupus erythematosus | 1 |
| Seborrhoeic dermatitis | 3 |
| Alopecia areata | 1 |
| Sebaceous cysts | 4 |
| Pyoderma-2 Boils and carbuncles | 4 |

Dental Conditions.

6 students attended on account of dental conditions as follows:

| | |
|-------------------|---|
| Alveolar abscess | 3 |
| Fractured tooth | 1 |
| Fractured maxilla | 1 |
| Infected socket | 1 |

.....
Tonsillitis
Deviated septum

Psychoneurotic Conditions.

| | |
|----------------------|---|
| Anxiety state | 4 |
| Examination neurosis | 3 |
| Hysteria | 2 |

.....
Dermatological
Epithelioma

Miscellaneous.

Among 41 students attending for miscellaneous conditions not listed above, the following were noted -

| | |
|----------------------|---|
| Acute nephritis | 1 |
| Thyreotoxicosis | 1 |
| Dysmenorrhoea | 3 |
| Malaria | 1 |
| Renal calculus | 1 |
| Haemorrhoids | 4 |
| Cystitis | 3 |
| Concussion | 3 |
| Diabetes | 1 |
| Fibrositis | 3 |
| Headache | 6 |
| Mammary cyst-adenoma | 1 |
| Obesity | 2 |
| Vaccination | 2 |
| T.A.B. inoculation | 2 |
| Hirsutism | 1 |

.....
Cases referred for X-ray examination (total)
Routine chest X-ray

Hospital Admissions.

18 students were admitted to hospital as follows -

| | |
|---------------------------|----|
| <u>Surgical</u> | 18 |
| Acute appendicitis | 4 |
| Perforated duodenal ulcer | 1 |
| Carbuncle of Neck | 1 |
| Haemorrhoids | 1 |
| Anal fissure | 1 |
| Concussion | 1 |

E.N.T.

| | |
|-----------------|---|
| Tonsillectomy | 2 |
| Deviated septum | 1 |

Medical

| | |
|------------------------|---|
| Acute nephritis | 1 |
| Persistent albuminuria | 1 |
| Sigmoidoscopy | 1 |

Dermatological

| | |
|------------------|---|
| Epidermophytosis | 1 |
|------------------|---|

Infectious Diseases

1

Orthopaedic

| | |
|--------------------------------------|---|
| Recurrent dislocation of shoulder | 1 |
|--------------------------------------|---|

.....

Cases referred for Specialist Opinion.

| | |
|-------------------------|----|
| Surgical | 11 |
| Medical | 5 |
| Dermatological | 4 |
| E.N.T. | 7 |
| Dental | 3 |
| Orthopaedic | 4 |
| For Physiotherapy | 11 |
| To Tuberculosis Officer | 2 |

.....

| | |
|---------------------------------------------------------------------|----|
| Cases referred for X-ray examination (excl. routine chest X-ray) | 25 |
|---------------------------------------------------------------------|----|

| | |
|--------------------------------------|---|
| Cases referred for Electrocardiogram | 1 |
|--------------------------------------|---|

| | |
|---------------------------------------------|----|
| Pathological specimens sent for examination | 20 |
|---------------------------------------------|----|

| | |
|-----------------------------------------|-----|
| National Health Insurance Registrations | 121 |
|-----------------------------------------|-----|

Investigation carried -21- by Dr. J. E. Smith, Department of Biochemistry (University College, London, University of St. Andrews.

Parents interviewed or notified 16
University Departments notified 12

| No. | | | |
|--------------|--------|--|-------------|
| Age | R | | 18-22 |
| Mr Kiles | R | | 27.0 + 11.9 |
| | M | | 22.2 |
| Mr Gms | R | | 22-23 |
| | M | | 22.2 |
| Carbohydrate | R | | 22-23 |
| G. | M | | 22.2 |
| Fat g. | R | | 22-23 |
| | M | | 22.2 |
| Protein g. | R | | 22-23 |
| | M | | 22.2 |
| Animal | R | | 22-23 |
| Protein g. | R | | 22-23 |
| Calories | R | | 22-23 |
| | M | | 22.2 |
| Calories | R | | 22-23 |
| Carbohydrate | R | | 22-23 |
| % from | M | | 22.2 |
| Fat | R | | 22-23 |
| | M | | 22.2 |
| Protein | R | | 22-23 |
| | M | | 22.2 |
| Alcohol | R | | 22-23 |
| | M (17) | | 22.2 |
| Urinary R | R | | 22-23 |
| x 8.26 | M | | 22.2 |

Investigation carried out by Dr. R. P. Cook, Department of Biochemistry (University College, Dundee), University of St. Andrews.

DIETARY INTAKES OF DUNDEE STUDENTS, 1948-49

| | | MEN | Women |
|------------------------------|--------|-------------|-------------|
| No. | | 44 | 16 |
| Age | R | 18-33 | 18-31 |
| Wts Kilos | R | 56.8 - 94.9 | 47.0 - 71.9 |
| | M | 70.6 | 60.3 |
| Hts cms | R | 167-190 | 156-173 |
| | M | 176.8 | 164.3 |
| Carbohydrate g. | R | 254-633 | 155-362 |
| | M | 388 | 267 |
| Fat g. | R | 74-154 | 60-192 |
| | M | 112 | 100 |
| Protein g. | R | 67-149 | 55-125 |
| | M | 98.0 - 20.1 | 73.7 - 16.8 |
| Animal | R | 23-77 | 20-78 |
| Protein g. | M | 48.8 | 39.7 |
| Calories | R | 2276-4103 | 1474-3485 |
| | M | 2979-446 | 2219-481 |
| Calories Carbohydrate % from | R | 38-62 | 41-59 |
| | M | 51.8 | 48.3 |
| Fat | R | 26-44 | 30-50 |
| | M | 34.1 | 40.2 |
| Protein | R | 9-18 | 11-17 |
| | M | 13.0 | 13.5 |
| Alcohol | R | 0.9 - 12.7 | 0 |
| | M (17) | 4.0 | 0 |
| Urinary N | R | 47-148 | 56-129 |
| x 6.25 | M | 94.3 - 25.8 | 82.4-24.5 |

1948-49

INTAKES OF CALCIUM, IRON AND VITAMINS

| | | MEN | WOMEN |
|----------------------|----|-------------|--------------|
| Calcium g. | R | 0.54 - 1.70 | 0.50 - 1.60 |
| | M | 0.95 | 0.88 |
| Iron mg. | R | 11.8 - 56.1 | 10.2 - 21.9 |
| | M. | 20.5 | 14.6 |
| Carotene I.U. | R | 2031-22,920 | 764 - 16,580 |
| | M | 7129 | 7100 |
| Vitamin A I.U. | R | 810-14,680 | 1080-9860 |
| | M | 3319 | 2385 |
| Thiamine mg. | R | 0.95 - 3.75 | 0.70 - 1.80 |
| | M | 1.72 | 1.25 |
| Ascorbic acid mg. | R | 32-358 | 31-272 |
| | M | 139 | 97 |
| % "Saturated" | | 32 | 25 |

UNIVERSITY OF ST. ANDREWS

UNIVERSITY OF ST. ANDREWS

STUDENT HEALTH (in Dundee)

STUDENT HEALTH SERVICE

Second Annual Report, Academic Year 1949-50

University College, Dundee,
Senior Medical and Dental Schools, Dundee.

Second Annual Report
Academic Year 1949 - 50

A. General Review and Summary of Figures for Attendance,
Medical Examination etc.

B. Report on

- 1) Accommodation and Environment
- 2) Records. University College, Dundee,
- 3) National Hospital for Nervous Diseases
- 4) Senior Medical and Dental Schools, Dundee.
- 5) Psychiatry.
- 6) Tuberculosis

Contents

- 1) Routine Ex.
 - 2) Attendance.
- A. General Review and Summary of Figures.
- B. Survey of Work done, Report and Comments.
- C. Appendices.
- 9) Conclusion

D. Appendices.

- 1) Medical Examination and Record.
- 2) Attendance
- 3) Classification by Diseases.

UNIVERSITY OF ST. ANDREWS

(in Dundee) HEALTH SERVICE

St. Andrews University

STUDENT HEALTH SERVICE

(in Dundee)

Second Annual Report, Academic Year 1949-50

Second Annual Report. Academic Year 1949-50

University College, Dundee,
Senior Medical and Dental Schools, Dundee.

A. General Review and Summary of Figures for Attendance,
Medical Examination etc.

B. Report on

- 1) Accommodation and Equipment.
- 2) Records.
- 3) National Health Service.
- 4) Supplementary Ophthalmic Service.
- 5) Psychiatry.
- 6) Tuberculosis

1) Routine Examination

2) Attendance.

3) Mass Radiography

4) B.C.G. Vaccination

5) Conclusion

7) Hospital Accommodation and Consultations

8) Liaison

9) Conclusion

C. Appendices. Service during the year,

- 1) Medical Examination and Record.
- 2) Attendance
- 3) Classification by Diseases.

In Quarters

Full Medical Examinations

These figures exclude attendance made in connection
with B.C.G. and Mass Radiography Schemes.

The 32 students who voluntarily attended for
full medical examination were mainly First Year students.

Examination findings were recorded on a new type of

Form devised by the Institute of Social Medicine,

Oxford.

STUDENT HEALTH SERVICE

St. Andrews University

(in Dundee)

Second Annual Report. Academic Year 1949-50

This Report reviews the work in Dundee of the Student Health Service, St. Andrews University, during the academic year 1949-50 - its second year in operation.

During the period 411 students at the University attended for examination and/or treatment. These were drawn from the various faculties as under:

| | | | |
|--------------|-------------------------|-----|------------------|
| <u>Men</u> | Arts and Law | 21 | |
| | Science and Engineering | 124 | |
| | Medicine and Dentistry | 168 | |
| <u>Women</u> | All Faculties | 98 | <u>Total</u> 411 |

These figures are exclusive of students who attended the Health Service only in connection with B.C.G. or Mass Radiography Schemes. The addition of these gives a total of 683 students who made use of the Student Health Service during the year.

Attendances made during the year totalled 1740

| | |
|---------------------------|------|
| At Consulting Rooms | 1489 |
| In Quarters | 189 |
| Full Medical Examinations | 62 |

These figures exclude attendance made in connection with B.C.G. and Mass Radiography Schemes.

The 62 students who voluntarily attended for full medical examination were mainly First Year students. Examination findings were recorded on a new type of Form devised by the Institute of Social Medicine, Oxford/

Oxford, and a transcript of it is sent to them for analysis. A copy of this Form is also maintained for every student making use of the Health Service for the purpose of treatment during illness and entries are made as opportunity arises.

The Form embodies the PULHEEMS System of medical classification with seven subdivisions of bodily and mental function, which permits an exact grading of those examined instead of, as before, a general impression of physical condition expressed in terms of somewhat arbitrary standards. The analysis of this year's Forms is not yet completed but some extracts are included in an appendix to this Report.

The year under review has seen an effort made to deal with the serious problem of tuberculosis among students. B.C.G. and Mass Radiography schemes were introduced for the first time, and altogether twelve cases showing some form of pulmonary tuberculosis were encountered. In four cases admission to a sanatorium was required.

The Student Health Service continues to be approved under the National Health Service Scheme and now 171 students are registered as National Health Insurance patients.

The above summarises attendances etc. made during the year. The remainder of this Report comments on certain aspects of the work of the Health Service and an appendix gives an analysis of some Examination findings and of conditions treated etc.

Accommodation and Equipment.

At the start of this academic year, the Student Health Service moved to more commodious premises at 5 Airlie Terrace. These have proved in every way convenient and satisfactory. The move necessitated some additional expenditure on office equipment and furnishings. Expenditure during the year on medical and surgical equipment has been practically negligible and most of the drugs and dressings used made a charge on the National Health Service.

Records.

This year a new Record Form was brought into use. This Form (a copy is attached to this Report) was devised by Dr. Parnell of the Institute of Social Medicine, Oxford, in collaboration with a sub-committee of Medical Officers from various universities. The Form provides a standard method of tabulating examination findings, etc., and is now in use in many British universities. A transcription is sent annually to the Institute of Social Medicine, Oxford, where an analysis of the findings is made. The application of exact statistical methods enables comparisons to be made on different points and may lead to results of considerable practical value as well as of great interest.

Here a Form is maintained for each student using the Health Service though it is possible to complete it fully only in the case of those students reporting for full medical examination. For students attending for/

for treatment, entries are made as opportunity arises, and the details of treatment, etc., are recorded separately. These latter findings are summarised later in this Report.

It will be seen that the Oxford Record Form is very comprehensive and possibly, when completed, yields information concerning the social and economic status of students, not easily available to the University by any other means. Students here are never questioned as regards their parents' financial position but they have shown no reluctance whatsoever to offer information on any other points. The value of this Form would be greatly enhanced if one could be maintained in full for every student, each being asked to attend for a short interview at the beginning of his or her academic career. The voluntary principle, however, works fairly well and numbers are constantly increasing.

National Health Service.

Most students are now aware of the various benefits available to them under this Scheme, in their case with exemption from the ordinary weekly contributions of an employee. Many students from towns outside the Dundee area, transfer their medical cards to the Student Health Service on arrival; many more do so on the first occasion they require any treatment. There are now 170 students registered here as patients under the National Health Service. Capitation fees in respect of them are paid direct to the University Court. Under the provision of the/

the National Health Service (Scotland) Act, stock drugs and dressings can be obtained free of charge for use in the treatment of such cases.

Students permanently resident in Dundee cannot be accepted as patients under the National Health Service. Many, however, make use of the Student Health Service for medical examination, X-ray, treatment of minor illness, etc., and the only difficulty that arises is in connection with prescribing for them. Some cases are referred to their family doctor, conversely some local doctors are beginning to refer their student patients here and to ask for assistance re special investigations, admission to hospital, etc.

Supplementary Ophthalmic Service.

This part of the National Health Service is unrestricted and use has been made of it to refer cases of defective vision, refractive errors, etc., to local Eye Specialists for complete investigation. Forty cases have been dealt with in this way, thirty-three of whom were provided with glasses.

The various Eye Specialists have been most helpful in arranging appointments to suit the convenience of students.

Psychiatry.

In last year's Report, attention was drawn to what appears to be an unduly large number of students requiring treatment for psychosomatic or psychoneurotic illness. Another year's experience confirms this earlier observation.

From the figures given in the appendix to this Report, it will be seen that during the present year, there has been one case of serious mental illness requiring admission to hospital, and four cases were referred to a psychiatrist for specialist treatment. These figures do not take into account a considerable number of students whose symptoms of headache, anorexia, dyspepsia, insomnia, etc., were but the manifestation of worry or anxiety.

Part of the problem is how best to deal with those cases. Many, in fact the majority, react well to treatment on simple lines and to sympathetic handling. There remain a few who require more prolonged investigation and treatment. There are not the same facilities available here for the treatment of these as exist for straightforward medical or surgical cases, and though Dr. Uytman of the Staff here has kindly undertaken privately the treatment of several, there are limits to the demands that can be made on his time.

The established mental disorder or psychosis presents no problem - institution treatment is easy to arrange and the future of such a case lies away from a university. The treatment of the psychoneuroses is different and is a problem which is giving increasing concern to the Student Health Services in many universities. In this connection it is relevant to quote from a recent speech by the Vice-Chancellor of Oxford University, who remarked, "Surveying the university/

university scene as a whole, I get the impression that a lot of worrying is going on - some of it relatively harmless but a great deal harmful. The prevalence among students of what are called anxiety states is a matter of mounting concern. Such figures as are available from university health services indicate that some form of acute personal anxiety is the commonest of student ailments."

"We encourage students to believe that an enormous amount will turn on the result of formidable examination tests. We give them enough history and philosophy to inculcate the complete uncertainty of things and enough science to help them realise its potential destructiveness. Is it any wonder we tend to worry?"

There is no easy or obvious solution but the problem is one which deserves the attention of all who as teachers or in any other capacity are brought in contact with students.

Tuberculosis.

During the year under review, considerable attention has been paid to the problem of Tuberculosis among students. Investigations have been conducted along several different lines and cases have been discovered by the following methods:

1. Routine Examination.

All students who voluntarily present themselves for general medical examination are sent for 'Large Film' X-ray of the chest as part of the examination. Chest X-ray is also arranged for any student who particularly requests/

requests it. These examinations are made at the Chest Clinic, Dundee, under the supervision of Dr. McIntosh, Consultant in Tuberculosis to the Eastern Regional Board, who has kindly arranged a special session each week reserved for university students. Dr. McIntosh himself reports on these films and also sees all doubtful or suspect cases. Most cases are reported on as "Normal" at the first examination; a few have required repeated attendances or a period of observation. This year three cases of tuberculosis have been discovered by this method.

i. Male. Final Year Medicine.

Age 30 years. Family history of T.B.

Diagnosis: Early tuberculous cavitation left apex.

Disposal: Admitted Sanatorium, June 1950.

No Chest X-ray taken before entry into University.

ii. Female. Final Year Dentistry.

Age 23 years.

Diagnosis: Early infiltration (right middle and lower zones) probably tuberculous.

Disposal: Under observation.

No previous Chest X-ray.

iii. Male. 2nd Year Science.

Age 20 years.

Diagnosis: Stable tuberculous focus left apex.

Disposal: This case was first discovered during routine examination last year and remains under regular observation.

No previous Chest X-ray.

Total Cases - 3.

(one first noted 1948-9)

2. Attendance.

Two cases of pulmonary tuberculosis were encountered during ordinary medical attendance on students sick in quarters, etc.

i. Male. 2nd Year Science.

aet. 19 years.

History: This student attended the Consulting Rooms and gave a history of having had a sharp haemoptysis during the night. The general condition was good and physical examination showed only some indefinite signs of the left apex. It was possible to arrange that the student was X-rayed, seen in consultation with Dr. McIntosh and admitted to hospital the same day with a provisional diagnosis of pulmonary tuberculosis.

Present Diagnosis: Fibro-caseous tuberculosis left upper lobe.

Disposal: This student is still receiving sanatorium treatment.

Previous X-ray: Chest X-ray 1948-9 was reported on as "Normal".

ii. Male. 4th Year Dentistry.

aet. 36 years.

History: This was a known case of pulmonary tuberculosis, who had been under treatment locally as an out-patient since April 1948. His general condition was deteriorating and he sought advice in connection with the continuation of his studies. Dr. McIntosh made available his records of this student and it was quite obvious that, as well as being a potential source of infection to others, he was urgently in need of sanatorium treatment, which had been previously offered and refused. Eventually the student was persuaded to give up his studies, at least for the time being, and undergo sanatorium treatment.

Diagnosis: T.B. infiltration upper zones both lungs.

Disposal: Admitted to Sanatorium.

Previous Chest X-ray. Was invalided from Army Service 1940 - ? chest condition.

Total Cases - 2.

3. Mass Radiography.

By courtesy of the Eastern Regional Board, their Mass Radiography Unit was installed within the College area and placed at our disposal for the miniature radiography of all students, for one week during March of this year.

Every student in the College was individually notified of the purpose of this scheme and given an appointment to attend. Appointments were arranged as far as possible to cause the least interference with classes, and members of the Teaching Staff were advised of the arrangements and asked to overlook some inevitable disturbance of work during the three days it took to complete the scheme. Members of the Teaching Staff were most helpful in their attitude and did everything possible to encourage students to attend.

837 Students were notified and given appointments for X-ray. A considerable number of students intimated illness, work at Perth, Bridge of Earn, etc., as a reason for their inability to attend - many of these have since had X-ray examination arranged. 625 Students (74.67%) attended the Mass Radiography Unit for examination. It is a pleasure to record that they kept appointments punctually and that their behaviour throughout was exemplary, reflecting credit on themselves and on their University.

Several members of the Staff asked to be allowed to participate in the Scheme and accordingly a day was set aside for them and 72 members attended.

The details given below apply only to students.

| Faculty | Males exam. | Recall. Lge Film | Clinic- al exam. | Females | Recall. Lge Film | Clinical exam. |
|------------------|-------------|------------------|------------------|---------|------------------|----------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Engin- eering | 109 | 5 | 2 | - | - | - |
| Science | 93 | 6 | - | 42 | 4 | 1 |
| Arts | 42 | 4 | 3 | 55 | 1 | - |
| Medicine | 159 | 4 | 1 | 60 | 2 | 1 |
| Dental | 21 | 1 | 1 | 3 | - | - |
| Law | 39 | 3 | 1 | 1 | - | - |
| Divinity | 1 | - | - | - | - | - |
| | 464 | 23 | 8 | 161 | 7 | 2 |

| Examined | Recall. | Recall. | Provisional Diagnosis |
|----------|---------|---------------|------------------------|
| | Lge | from (3) | of |
| | Film | for Clin. | Pulmonary tuberculosis |
| | | exam. | |
| (1) | (2) | (3) | (4) |
| Males | 464 | 23 (4.96%) | 8 (1.72%) |
| Females | 161 | 7 (4.35%) | 2 (1.24%) |
| Total | 625 | 30 (4.80%) | 10 (1.60%) |

The following gives a brief note on each of the cases provisionally diagnosed as showing some form of pulmonary tuberculosis.

Case 1. Male. 3rd Year Medicine. Aet 28 years.

Case 7. Report: Fibro-calcific lesion left apex and/

and 2nd left interspace. Probably an inactive tuberculous lesion.

Disposal: To remain under observation.

Previous Chest X-ray: 1945 - Normal.

Case 2. Male. 1st Year Dentistry. aet 28 years.

Report: Small round tuberculous focus 2nd right space.

Disposal: Observation and monthly X-ray.

Previous Chest X-ray: None.

Case 3. Male. 2nd Year Engineering. aet 20 years.

Report: Tuberculous lesion 1st and 2nd right interspace. Disease probably inactive or of low grade activity.

Disposal: Observation and monthly X-ray.

Previous Chest X-ray: 1948 - Normal.

Case 4. Male. 2nd Year Arts. aet 19 years.

Report: Opacity left apex and a smaller opacity right apex. Lesions are probably inactive or of low grade activity.

Disposal: Observation and monthly X-ray.

Previous Chest X-ray: Nil.

Case 5. Male. Final Year Medicine. aet 26 years.

Report: Tuberculous lesion above right clavicle. Disease is probably inactive.

Disposal: Observation and monthly X-ray.

Previous Chest X-ray: 1942, 1943, 1946 - Normal.

Case 6. Female. 2nd Year Science. aet 19 years.

Report: Soft opacity with cavitation right mid zone. Some mottling right upper zone. Small opacity 1st right interspace and also in 2nd left interspace.

Disposal: Admitted to Sanatorium.

Previous Chest X-ray: None

Case 7. Female. 1st Year Medicine. aet 20 years.

Report/

Report: Healed primary complex right mid zone. Markings 3rd left interspace increased ? early infiltration.

Disposal: Observation and monthly X-ray.

Previous Chest X-ray: None.

Total Cases - 7

All the above cases have been investigated as regards blood changes, sedimentation rate, gastric lavage, etc., but the findings are not included in this Report.

It is hoped to make this Mass Miniature Radiography an annual Scheme in the University, an even better attendance obtained and a speed-up effected in the examination of "Recalls", as experience acquired. It might be noted that Queen's University, Belfast, has instituted a Mass Radiography Scheme as an annual measure at which attendance by students is compulsory.

Lastly thanks are due to Dr. Young of the Mass Radiography Unit and his assistants for their painstaking work in connection with this survey and for the readiness with which they altered their usual procedure to fit in with our special requirements.

4. B. C. G.

At the request of the Dept. of Health for Scotland, the Local Public Health Authority and the Student Health Service were asked to combine in drawing up a Scheme whereby the protection of B.C.G. vaccination was to be offered to those Medical Students found by Mantoux testing, etc., to lack an effective natural immunity to tuberculosis. Earlier, this Scheme had been considered at/

at a meeting of Medical Officers from the Scottish Universities and Queen's University, Belfast, and a standard procedure was outlined. This was put before the local Committee formed to deal with the question, and with various modifications it was the one adopted.

The Scheme involved Mantoux testing and X-ray examination of all medical students who volunteered to participate, and it was intended to offer the protection of B.C.G. Vaccine to those found Mantoux negative, provided there were no radiological or other contra-indications. Students of the First and Second Years were addressed and the idea of this Scheme explained, those of the Senior Years were informed by circular. The response was fairly good and the initial Mantoux testing and radiological examinations were carried out with results as shown below. It was not found possible to arrange a control group of students drawn from other Faculties.

Pre-Clinical Students

| | No. | Positive 1/10,000 | Positive 1/100 | Negative | X-ray Result |
|-------|-----|----------------------|-------------------|------------------|-----------------------------------------------------------|
| Men | 27 | 15 | 11 | 1 | 26 'Normal' 1 Calcified T.B. foci upper mediastinum |
| Women | 14 | 5 | 5 | 4 | All 'Normal' |
| | | Men | 3.7% | Mantoux Negative | |
| | | Women | 28.6% | " | " |

Clinical Students

| | | | | | |
|-------|----|-------|-------|------------------|------------------------------------------------------------|
| Men | 43 | 27 | 15 | 1 | 3 Calcified foci 1 Healed primary comple 39 'Normal' |
| Women | 8 | 4 | 3 | 1 | All 'Normal' |
| | | Men | 2.3% | Mantoux Negative | |
| | | Women | 12.5% | " | " |

| | | | |
|-----------|--------|------------------|---------------|
| Total Men | 2.85% | Mantoux Negative | (2 out of 70) |
| Women | 22.70% | " " | (5 out of 22) |
| Students | 7.50% | " " | (7 out of 92) |

The Numbers under review in this series are too small to justify any significance being attached to the statistical findings.

Unfortunately, when only one Mantoux-negative student had been given B.C.G. inoculation, the Dept. of Health notified us that the scheme would have to be suspended owing to difficulties in the supply of vaccine. Presumably the scheme is only postponed and it is their intention to resume it whenever supplies permit but so far there has been no information of when this is likely to be.

5. Conclusion.

From the foregoing it will be seen that by various methods twelve cases of pulmonary tuberculosis have been encountered among students during the present academic year. This represents more than one per cent of the student population here and must be reckoned a fairly high figure. Not all were cases of active tuberculosis but the condition of four was such that immediate sanatorium treatment was required. It should be noted that this figure only refers to students who have made use of the facilities provided by the Student Health Service. It is likely, in fact it is known, that there are other cases in the University but they reside permanently in the Dundee area and continue under the care of their family doctor. There is no way at present of maintaining any check on these cases.

It/

It is not yet possible to compare our figures here with those obtaining in other British universities. There is general agreement that the incidence of tuberculosis among university students tends to be high and that this disease presents a serious problem. A British Co-ordinating Committee on Student Health is at present working on the subject and has asked to be kept informed of our figures. Their findings should prove of very great interest. The Medical Officer in charge of Cambridge University Health Service is also investigating the incidence of tubercle in students known to have normal Chest X-rays on entry to the University - he too has asked to be kept informed of our figures.

It is open to the University authorities here to consider whether the present voluntary use by students of facilities available, is adequate to deal with the problem. Certain universities elsewhere make a certificate of a clear Chest X-ray a prerequisite for entry; others insist on X-ray examination during the student's first year of study. Such measures may not be considered essential or even desirable at present and so far the voluntary principle has worked fairly well with the students responding in quite good numbers. Each individual can utilise the facilities provided to ensure his own health but any scheme for the general health of undergraduates is endangered if known cases of tuberculosis can evade surveillance.

In the past the British University Students' Association contributed to the upkeep of students from this/

this country suffering from tuberculosis, in sanatoria in Switzerland. This scheme has now been given up but assistance is provided for students who wish a period of convalescence under medical supervision in Switzerland. There are also schemes afoot for the establishment of a sanatorium in this country reserved exclusively for university students, and also for an International Students' Sanatorium in Switzerland. So far, hospital accommodation for our own students has proved no problem here and the local Tuberculosis Authorities have been most helpful in placing every facility at our disposal. Dr. McIntosh and his staff have taken a great deal of trouble in the examination and supervision of students and it is a pleasure to acknowledge the value of their services.

Hospital Accommodation and Consultations.

Although there is no Students' Ward or beds reserved for students in any of the local hospitals, there has never at any time been any difficulty in securing admission to hospital for a student in need of treatment. Dr. Jamieson and the Staff of King's Cross Hospital have been particularly helpful in admitting cases at short notice, sometimes when students from hostels or residences were concerned and where the immediate requirement was isolation or nursing.

In all, 24 students were admitted to various hospitals in the vicinity during the year. When the student concerned was one not permanently resident in Dundee, the parents were notified by telegram or telephone/

telephone and were also kept informed of progress - a minor point perhaps but one which seems to have been much appreciated.

Consultants in the various specialist departments have been most helpful and obliging and many have gone to a great deal of trouble as regards seeing students in consultation. With some departments there is now something like a standing arrangement whereby students referred through the Health Service are seen and reported on without the necessity of arranging appointments for every individual case. This is a matter of some importance as the success of any Student Health Service must depend to a large extent on the readiness with which any specialist treatment or opinion can be made available when it is required. Thanks are due to the many Consultants who have helped in this matter.

Similarly as regards bacteriological and pathological examinations - an increasing use has been made of the special facilities made available by courtesy of the Staff of the departments concerned.

Liaison with Health Services of other Scottish Universities.

A gratifying feature of the last year has been a growing liaison between the Student Health Services of the various Scottish universities.

This year by courtesy of the Medical Officers concerned, it was possible to arrange treatment for one of our students at Aberdeen, and for one at Glasgow. In each/

each case the student was near his home, hospital admission was arranged in advance and treatment was carried out during a vacation with the minimum interruption of the student's work. This co-operation is likely to increase and could be most advantageous.

Department of Physical Education.

Throughout the year close liaison has been maintained between the Student Health Service and the Department of Physical Education, under its Director, Mr. J. A. Qusklay. This co-operation in the treatment of athletic injuries, orthopaedic conditions etc., has proved of considerable practical value.

The facilities provided in this sphere by the Physiotherapy Department of the Royal Infirmary, have been much appreciated.

Student Health Conference.

Under the auspices of the Nuffield Foundation and Provincial Hospitals Trust, a Conference of University Medical Officers and others engaged in Student welfare, was held in Edinburgh in July of last year. Over eighty delegates attended, with every British university represented. Tuberculosis in students, the relationship between Student Health Services and the National Health Service, were among many points discussed. A fairly full report of the work of the Conference was given in an article contributed to "Chiasma", the publication of St. Andrews University Medical Society.

Later in the year, at the invitation of the Medical Officer/

Officer to Queen's University, Medical Officers from the Scottish universities held an informal conference in Belfast. The exchange of views proved of the highest value and it is hoped to continue these meetings in different centres each year.

Conclusion.

This Report comments on certain aspects of the work of the Student Health Service during its second year in operation and an appendix to the Report gives details of the number of attendances, health examinations, etc., and analyses certain findings. Nearly all the figures show an increase over these for the previous year. The Service has expanded in practically every department of its work and students are making increasing use of it. B.C.G. Schemes and Mass Radiography methods were introduced during the year.

In the majority of new cases dealt with during the year, the student's first contact with the Health Service was for the purpose of obtaining advice or treatment on account of illness rather than for routine medical examination. This is not a matter of any great moment and means only that for most cases medical examination and record proceeded coincidentally with treatment, instead of at one interview as in the case of those voluntarily requesting medical examination in health.

(Signed) H. J. Gibson,

Medical Officer.

APPENDIX

Medical Examination And Record.

This year a new type of Record Form was brought into use and one maintained for each student attending the Health Service, whether for voluntary medical examination or for treatment. In the former type of case it was usually possible to complete the Record Form in full, entries as regards reference to Specialists etc., being made as required during the year. For the latter type of case attending for the purpose of treatment, entries as regards physical condition, previous history etc. could only be made as opportunity arose and are of necessity, in many cases, incomplete.

The full analysis of this year's Forms is not yet available. What follows has been assessed from those Forms completed in respect of the particular point dealt with; the percentages shown are deduced therefrom and not always from the total number of students using the Health Service. It should be regarded at present more as an indication of the type of information which can be elicited than as an exact survey. Attendances made in connection with treatment are recorded separately and these are classified in subsequent pages of this appendix.

| No. of students | | Males | Females |
|-------------------|-------------|-------|---------|
| Examined/Attended | 411 | 313 | 98 |
| Civil State | Single | 93.6% | 99% |
| | Married | 6.0 | 1 |
| | Widowed | 0.4 | |
| | Divorced | - | |
| School Attended | Secondary | 79% | |
| | Boarding or | | |
| | Public | 21 | |

| | | Males | Females |
|-------------------------------|------------------------------|--------------|---------|
| National Service | Nil | 44% | |
| | Completed | 54.7 | |
| | Deferred | 1.3 | |
| Fathers R.G. Grouping | Group 1 | 26% | |
| | 2 | 42 | |
| | 3 | 28 | |
| | 4 | 3 | |
| | 5 | 1 | |
| Position of Student in Family | Eldest | 53% | |
| | Second | 20 | |
| | Third | 14 | |
| | Fourth | 7 | |
| | Fifth | 5 | |
| | Sixth | - | |
| | Seventh | 1 | |
| No. of Siblings | 1 | 13% | |
| | 2 | 36 | |
| | 3 | 20 | |
| | 4 | 17 | |
| | 5 | 5 | |
| | 6 | 3 | |
| | 7 | 3 | |
| | 8 | 3 | |
| Recreation | Outdoor | Sufficient | 57% |
| | | Insufficient | 43 |
| | Other | Sufficient | 60 |
| | | Insufficient | 40 |
| Living Conditions | Home | 16% | |
| | Hostel or Halls of Residence | 57 | |
| | Lodgings | 27 | |
| Weekly Expenditure | | | |
| Meals and Lodgings | under 50s. | 17% | |
| | 50s.- 60s. | 68 | |
| | 60s.- 70s. | 10 | |
| | 70s.- 80s. | 3 | |
| | 80s.- 90s. | - | |
| | over 90s. | 2 | |
| Daily Travel | Under 1 hr. Return | 94% | |
| | Over 1 hr. Return | 6 | |
| Weekly Fares | under 5s. | 94% | |
| | 5s.-15s. | 6 | |
| Habits | Tobacco | Nil | 50% |
| | | Slight | 35% |
| | | Moderate | 9 |
| | | Heavy | 6 |
| | Alcohol | Nil | 35% |
| | | Occasional | 65 |
| | | Regular | -- |

Attendances.

The number of students seen during the year for examination and/or treatment was 411. These were drawn from the various Faculties as under:

| | | |
|-------|-------------------------|-----|
| Men | Arts and Law | 21 |
| | Science and Engineering | 124 |
| | Medicine and Dentistry | 168 |
| Women | All Faculties | 98 |

Attendances made during the year amounted to 1740

| | |
|---------------------|------|
| At Consulting Rooms | 1489 |
| In Quarters | 189 |
| Routine Examination | 62 |

The above figures exclude students seen, or attendances made, only in connection with the Mass Radiography or B.C.G. Schemes.

Classification by Diseases.

The 1678 visits for purposes of treatment were in connection with:

| | |
|----------------------------------------|------------|
| Diseases of the Ear, Nose and Throat | 16% |
| Minor Sepsis and Minor Injury | 16 |
| Diseases of the Respiratory System | 14 |
| " " " Digestive | 14 |
| " " " Skin | 7 |
| Cardiovascular | 7 |
| Diseases of the Eye | 6 |
| Psychoneurotic Conditions | 5 |
| Orthopaedic | 5 |
| Diseases of the Central Nervous System | 2 |
| Genito-urinary Conditions | 1 |
| Dental | 1 |
| Miscellaneous | 6 |
| | <u>100</u> |

Diseases of the Ear, Nose and Throat.

69 students attended for treatment for E.N.T. conditions as shown below:

| | |
|------------------|----|
| Wax in Ear | 14 |
| Pharyngitis | 11 |
| Pharyngeal ulcer | 1 |

| | |
|------------------------------|----|
| Acute tonsillitis | 13 |
| Acute otitis media | 4 |
| Streptococcal throat | 5 |
| Acute rhinitis | 2 |
| Otitis externa | 3 |
| Suppurative otitis media | 1 |
| Acute sinusitis | 4 |
| Chronic sinusitis | 1 |
| Hay fever desensitisation | 2 |
| Deviated nasal septum | 3 |
| Eustachian obstruction | 2 |
| Vallecular cyst | 1 |
| Furuncle of meatus | 1 |
| Chronic granular pharyngitis | 1 |

8 of these cases were referred to specialists for appropriate operative treatment.

Diseases of the Eye.

52 students attended for treatment in connection with visual defects and Eye conditions as follows:

| | |
|-----------------------------------------------|----|
| Acute conjunctivitis | 9 |
| Subconjunctival haemorrhage | 2 |
| Hordeolum | 1 |
| Foreign body | 1 |
| Myopia with astigmatism | 15 |
| Myopia | 3 |
| Hypermetropia | 5 |
| Hypermetropia with astigmatism | 8 |
| Convergence insufficiency | 1 |
| Convergence insufficiency with hypermetropia | 1 |
| Hypermetropia with astigmatism and strabismus | 1 |
| Acute keratitis | 1 |
| Nystagmus | 1 |
| Central serous retinopathy | 1 |
| Astigmatism | 1 |
| Blepharitis | 1 |

40 cases were referred to Eye Specialists under the Supplementary Ophthalmic Service, 33 being provided with glasses.

Diseases of the Skin.

37 students were treated for skin conditions as follows:

Urticaria/

Diseases of the Digestive System.

| | |
|------------------------|---|
| Urticaria | 4 |
| Epidermophytosis | 8 |
| Sycosis barbae | 5 |
| Acne | 2 |
| Seborrhoeic dermatitis | 3 |
| Sebaceous cyst | 1 |
| Boils | 6 |
| Pruritus | 1 |
| Scabies | 1 |
| Bromidrosis | 2 |
| Verruca vulgaris | 3 |
| Carbuncle | 1 |

Orthopaedic Conditions.

22 students were treated for orthopaedic conditions as follows:

| | |
|-----------------------------------|---|
| Sacro-iliac arthritis | 1 |
| de Quervain's disease | 1 |
| Pes planus | 1 |
| Arthritis | 4 |
| Synovitis | 4 |
| Ingrowing toe-nail | 1 |
| Prolapsed intravertebral disc | 1 |
| Torn internal meniscus | 2 |
| Hallux valgus | 1 |
| Ganglion | 2 |
| Vertebral epiphysitis | 1 |
| Recurrent dislocation of shoulder | 1 |
| Bursitis | 1 |
| Ruptured tendon | 1 |

Diseases of the Respiratory System.

71 students were seen on account of diseases of the respiratory system as follows:

| | |
|----------------------------------------|----|
| Bronchitis | 23 |
| Pulmonary tuberculosis | 6 |
| ? T.B. observation | 3 |
| T.B. inactive apical foci | 5 |
| Tuberculosis - healing primary complex | 1 |
| Influenza | 7 |
| Common cold | 19 |
| Atypical pneumonia | 1 |
| Bronchiectasis | 2 |
| Bronchial asthma | 2 |
| Chronic bronchitis | 1 |
| Pleurodynia | 1 |

Diseases of the Digestive System.

49 students required treatment for the following conditions:

| | |
|--------------------------------|------|
| Dyspepsia | 13 x |
| Constipation | 3 |
| Herpes labialis | 2 |
| Peptic ulcer | 5 |
| Gastritis | 3 |
| Gastro-enteritis | 10 |
| Deficient pancreatic digestion | 1 |
| Acute appendicitis | 1 |
| Sub-acute appendicitis | 1 |
| Appendicular colic | 2 |
| Infective hepatitis | 2 |
| Intestinal colic | 3 |
| Anal papillomata | 1 |
| Haemorrhoids | 2 |

x (Several of these cases though radiologically negative, displayed a typical peptic ulcer syndrome and were treated accordingly).

Minor Sepsis and Minor Injury.

Among 65 students requiring treatment for minor injuries and minor septic conditions were:

| | |
|---------------|----|
| Sprains | 17 |
| Contusions | 22 |
| Burns | 2 |
| Paronychia | 2 |
| Whitlow | 2 |
| Haematoma ear | 1 |
| I. A. T. | 6 |

Diseases of the Cardiovascular System.

20 students attended for treatment for cardiovascular conditions as follows:

| | |
|-------------------------------|---|
| Anaemia | 5 |
| Varix | 1 |
| Valvular disease of the heart | 1 |
| Lymphadenitis | 5 |
| Lymphadenitis ? tuberculous | 1 |
| D.A.H. | 3 |
| Traumatic phlebitis | 1 |
| T.B. cervical adenitis | 1 |
| Acroparaesthesia | 1 |
| Lymphadenoma | 1 |

Diseases/

Hospital Admissions.

Diseases of the Genito-urinary System.

During the year admissions to hospital were arranged in the case of 24 students as follows:

conditions as follows:

| | |
|-------------------------|---|
| Surgical | |
| Urethritis | 1 |
| Acute nephritis | 1 |
| Cystitis | 1 |
| Calculus pyonephrosis | 1 |
| Orthostatic albuminuria | 1 |
| Herpes | 2 |
| Dysmenorrhoea | 2 |

Dental Diseases.

4 students required treatment for dental conditions as follows:

| | | |
|-------|-------------------------------|---|
| Infec | Apical abscess | 3 |
| | Apical abscess with maxillary | |
| | necrosis | 1 |

Psychological Conditions.

17 students attended for treatment for psychological, psychoneurotic, etc., conditions as follows:

| | | |
|---------|----------------------|---|
| Orthops | Anxiety state | 7 |
| | Neurasthenia | 1 |
| | Hysteria | 1 |
| Gynae | Nervous stammering | 1 |
| | Examination neurosis | 3 |
| | Schizophrenia | 1 |
| | Sleep disorders | 2 |
| Mental | Anorexia nervosa | 1 |

Miscellaneous.

Among 42 students treated for miscellaneous conditions not listed above, were:

| | | |
|-----------|----------------------------|----|
| | Vaccination | 14 |
| Case Refe | T.A.B. inoculation | 3 |
| | Hirsuties | 1 |
| | Endocrine obesity | 1 |
| | Mumps | 1 |
| | Fibrositis | 10 |
| | Diabetes | 1 |
| | Inguinal hernia | 1 |
| | Ventral hernia | 1 |
| | Artificial limb adjustment | 1 |
| | Infectious mononucleosis | 1 |
| Dental | | 3 |

Hospital Admissions.

During the year admissions to hospital were arranged in the case of 24 students as follows:

Surgical

| | |
|------------------------|---|
| Haemorrhoids | 2 |
| Acute appendicitis | 1 |
| T.B. cervical adenitis | 1 |
| Inguinal hernia | 1 |
| Calculous pyonephrosis | 1 |

Medical

| | |
|---------------------|---|
| Lymphadenoma | 1 |
| Endocarditis | 1 |
| Peptic ulcer | 1 |
| Infective hepatitis | 1 |

Infectious (to King's Cross Hospital)

| | |
|--------------------------|---|
| Acute tonsillitis | 3 |
| Mumps | 1 |
| Infectious mononucleosis | 1 |
| Atypical pneumonia | 1 |
| Influenza | 1 |
| Pulmonary tuberculosis | 3 |

Orthopaedic

| | |
|-------------|---|
| Meniscotomy | 1 |
|-------------|---|

Gynaecological

| | |
|--------------------|---|
| Endometrial biopsy | 1 |
|--------------------|---|

Mental

| | |
|---------------|---|
| Schizophrenia | 1 |
|---------------|---|

E. N. T.

| | |
|--------------------------------------------|---|
| Sub-mucous resection of nasal cartilage | 1 |
|--------------------------------------------|---|

Cases Referred for Specialist Opinion.

| | |
|----------------|----|
| Surgical | 19 |
| Medical | 7 |
| Dermatological | 3 |
| Orthopaedic | 4 |
| Ophthalmic | 40 |
| E. N. T. | 8 |
| Psychological | 4 |
| Gynaecological | 2 |
| Dental | 3 |

| | |
|-------------------------|-----|
| To Physiotherapy | 10 |
| To Tuberculosis Officer | 5 x |
| To Chest Surgeon | 1 |

x (excluding cases recalled for examination after
Mass Radiography)

| | |
|------------------------------------------------------------------------------|-----|
| Cases referred for X-ray examination (excluding radiography of the chest) | 49 |
| X-rays as part of B.C.G. Scheme | 93 |
| Chest X-ray as part of Routine medical examination | 83 |
| Miniature Chest X-ray | 655 |
| Cases referred for Electrocardiogram | 3 |
| Pathological specimens sent for examination | 36 |
| National Health Insurance Registrations | 171 |

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- A. General Review and Summary of Results.
- B. Survey of Work Done, Methods and Equipment.
- C. Appendices.

UNIVERSITY OF ST. ANDREWS
(in Dundee)

STUDENT HEALTH SERVICE

Third Annual Report

Academic Year 1950-51

A. General Review and Summary of Figures for Medical Examination, Attendance etc.

B. Report on

- 1) University College, Dundee,
- 2) Records.
- 3) Senior Medical and Dental Schools, Dundee.
- 4) Supplementary Courses.
- 5) Psychiatry.
- 6) Routine examination.
- 7) Medical Certificates.
- 8) Tuberculosis

Contents

- A. General Review and Summary of Figures.
- B. Survey of Work done, Reports and Comments.
- C. Appendices. Mantoux Testing and B.C.G. Vaccination.
17. Student Tuberculosis Centre.
- 9) Notes on Cases of Interest.
- 10) Conferences and Meetings.
- 11) Acknowledgement.
- 12) Conclusion.

C. Appendix. Detailed summary of attendances etc.

UNIVERSITY OF ST. ANDREWS
(in Dundee)

STUDENT HEALTH SERVICE
(in Dundee)

Third Annual Report. Academic Year 1950-1.

This Report reviews the work in Dundee of the
University College, Dundee,
Senior Medical and Dental Schools, Dundee.
the academic year 1950-51 - its third year in operation.

A. General Review and Summary of Figures for Medical
Examination, Attendance etc.

B. Report on

- 1) Accommodation and Equipment.
- 2) Records.
- 3) National Health Insurance.
- 4) Supplementary Ophthalmic Service.
- 5) Psychiatry.
- 6) Routine examination.
- 7) Medical Certificates.
- 8) Tuberculosis

- i. Mass Radiography
- ii. Note on Cases reported in Last
Year's Survey.
- iii. Mantoux Testing and B.C.G. 105 Total 505
Vaccination.
- iv. Student Tuberculosis Centre.

- 9) Notes on Cases of interest.
- 10) Conferences and Visits.
- 11) Acknowledgement.
- 12) Conclusion.

C. Appendix. Detailed summary of attendances etc.

Attendances made during the year total 1866.

| | |
|---------------------------|------|
| At Consulting Rooms | 1501 |
| In Quarters | 305 |
| Full Medical Examinations | 60 |

These figures again exclude attendances in connection
with B.C.G. and Mass Radiography Schemes.

As in former years, students who voluntarily
attended for full medical examination were mainly drawn
from

STUDENT HEALTH SERVICE

St. Andrews University

(in Dundee)

Third Annual Report. Academic Year 1950-1.

This Report reviews the work in Dundee of the Student Health Service, St. Andrews University, during the academic year 1950-51 - its third year in operation.

The year under review has seen an expansion in all aspects of the work of the Health Service, except that the number of students attending voluntarily for routine medical examination remains about stationary.

During the year 505 students attended for examination and/or treatment. These were drawn from the various faculties as under:

| | | |
|--------------|-------------------------|-----|
| <u>Men</u> | Arts and Law | 29 |
| | Science and Engineering | 138 |
| | Medicine and Dentistry | 232 |
| <u>Women</u> | All Faculties | 106 |
| | <u>Total</u> | 505 |

These figures exclude students who attended the Health Service only in connection with B.C.G. or Mass Radiography Schemes. The addition of these gives a total of 610 students who made use of the Health Service during the year.

Attendances made during the year total 1866.

| | |
|---------------------------|------|
| At Consulting Rooms | 1501 |
| In Quarters | 305 |
| Full Medical Examinations | 60 |

These figures again exclude attendances in connection with B.C.G. and Mass Radiography Schemes.

As in former years, students who voluntarily attended for full medical examination were mainly drawn from/

from the First Year. The Oxford type of Record Form is still in use and a copy is also maintained for every student who attends the Health Service for any reason. When completed this Form gives a very excellent and complete record of sociological data as well as medical findings and it is hoped to make a fuller analysis of the various findings at some later date.

In the year under review facilities for B.C.G. vaccination and Mantoux testing have again been available and again a Mass Radiography Survey was conducted.

The Student Health Service continues to be approved under the National Health Service Scheme and now 196 students are registered as National Health Insurance patients.

The foregoing summarises attendances etc. made during the year. The remainder of this Report comments on some aspects of the work of the Health Service.

An Appendix to the Report gives a short analysis of particular conditions treated - more detailed information is available if required.

willing and helpful but not all are able or free to undertake nursing duties in addition to their own. It is accordingly sometimes a matter of some difficulty to make adequate arrangements for the care and supervision of students in this situation.

Records.

Reference has been made to the Record Form, a copy of which/

Accommodation and Equipment.

The Consulting Rooms at 5 Airlie Terrace continue in use and have proved suitable in every way as well as being conveniently situated for students. Very little expenditure has been incurred on equipment, drugs and dressings, most of which can now be obtained through the National Health Service.

The small Sick Bay in the new wing of West Park Hall has been taken into use and has proved of advantage in isolating cases of suspected infectious disease.

The absence up to date of any planned accommodation of this nature in the men's halls of residence has not proved a very serious drawback so far. With the help of wardens and housekeepers it has always been possible to make some suitable arrangement for students not ill enough to require admission to hospital. Cases of suspected or established infectious illness can usually be admitted to Kings Cross Hospital.

In contrast, students in private lodgings still present something of a problem when they develop illness of moderate severity, not sufficiently serious to justify admission to hospital. Many of the landladies are most willing and helpful but not all are able or free to undertake nursing duties in addition to their own. It is accordingly sometimes a matter of some difficulty to make adequate arrangements for the care and supervision of students in this situation.

Records.

Reference has been made to the Record Form, a copy of which/

which is maintained for each student using the Health Service. The Institute of Social Medicine, Oxford, have kindly offered their services in the analysis of these forms and of the findings recorded therein.

To await results, however, would cause some delay in the presentation of this Report and it has been decided to leave this over for the present. It may be that at some later date a detailed analysis extending over several years will be made.

National Health Service.

Most students are now aware of the various benefits available to them under this Scheme, in their case with exemption from the ordinary weekly contributions levied on employees.

Many students transfer their medical card to the Student Health Service on their arrival in the University - many more do so on the first occasion they require any medical attention or treatment. In some cases where it is expedient for any particular reason to leave a student registered with his family doctor, he can still obtain free drugs, medicines etc. by registering with the Student Health Service as a temporary patient.

So far this system has been operated without any difficulty and from time to time local doctors have referred their student patients to the Student Health Service.

Supplementary Ophthalmic Service.

This particular facility of the Student Health Service/

Service is unrestricted and many students have made use of the Student Health Service for Eye examinations and refraction tests and specialist consultations have been arranged for them when necessary. Twenty-eight students have been dealt with in this way and eighteen provided with glasses under the Scheme.

Psychiatry.

The examination, care and treatment of students suffering from some psychological tension, maladjustment or difficulty is one of the most worrying features of Student Health work.

I ask indulgence for purely personal views in this particular paragraph. I do not profess to know the answers to many aspects of this particular problem. It is a problem and one which is giving concern to the Student Health Services of practically every university in this country. I have drawn attention to this matter in two previous reports and a further year's experience in this type of work confirms the impression that cases of psychoneurosis and minor forms of psychological disturbance form a rather high proportion of students making use of this Health Service.

In a previous appointment, my duties brought me into daily contact with a group of young people, broadly comparable in background, education and upbringing to a university student population, though admittedly they had entered the Indian Army with a clean bill of health. I refer to the younger British officers of the Indian Army. One met these not only professionally when they required treatment for any illness, but also socially and/

and in sport and recreation. The opportunity was there to know many very intimately in the same way as many students are now known to me.

It may be I have an unconscious tendency to compare the army group with the student group in this particular matter and if it is so, the student group suffers adversely in this respect from the comparison. The young Army officer was a selected individual as to some extent the University student also is; he had his own occupational stresses including at times the hazard of life or health, and a disciplined existence in which mental effort, hard physical effort, and recreation all take their part in the training for his chosen profession. My impression is that psychological maladjustment or difficulty was much less frequently encountered in this group than in the student one today.

Many of the cases encountered here among students are of a mild character. They react well to sympathetic handling and general advice. My tendency at present is to refrain from referring these cases for specialist advice unless such seem absolutely necessary. This may not be the correct course and it is possible I shall take a different view of things as further experience is acquired.

I think the problem is one with many aspects - the strain of competitive examinations, the necessity of justifying State financial awards, apprehension as to the security of future employment, and the overstressing of the value in future life of obtaining an honours

degree, are possibly but a few of the factors involved.

One serious psychiatric emergency occurred during the year. He was a first year medical student who progressed fairly rapidly into a condition of serious mental illness and who had to be certified on an Emergency Certificate and admitted to a local mental hospital. It was possible to have one of the boy's parents here in time to obtain their sanction to the measure. This type of mental illness, possibly the beginning of a serious psychosis, must occur from time to time in any fairly large community. Treatment facilities are available and the question of a return to studies in due course must depend on the outcome of treatment. There can only be sympathy for the individual case and the parents concerned; the real problem concerns the much milder psychological disturbance or psychoneurosis more frequently met with.

Possibly the answer does not lie so much in treatment by physicians but in co-operation between them and all who play a part in influencing a student during his university career - as wardens, teachers, 'regents', ministers of religion etc. I know that many of these already have given this matter much earnest consideration.

Routine Examination.

Sixty students voluntarily asked for full routine medical examination. They were practically all First Year students who attended during the early weeks of the academic/

academic year. After the early weeks, other activities take priority and numbers decline. Medical examination is purely voluntary - the advisability of it is brought home to students in several different ways, but there is no compulsion on them to attend.

But very many more students are fully examined. Every student attending on account of illness is examined as fully as is necessary for the proper investigation of his case.

In this experience, that whenever a Student Health Service offers facilities for medical examination in health and for treatment and attendance in illness, it is the latter aspect that attracts the student, we are following that of other universities elsewhere. Records and Reports from other university Health Services all relate the same story, that as far as the student population is concerned, the appreciation of their own Health Service lies mainly in the facilities it offers for medical attendance and for treatment and investigation during illness.

Despite this, examination in health is still a valuable part of the work of the Health Service and is as well a useful means of collecting information concerning students' living conditions, economic and other circumstances not readily available to any other University Department. While the system remains voluntary however - and there is no suggestion that compulsion should be advocated - it is unlikely that there will be any marked increase in the number of students voluntarily attending for medical examination.

Medical Certificates.

All students who are allotted accommodation in University Halls or hostels are now required to furnish a medical certificate of fitness and freedom from infection before being permitted to take up residence.

Tuberculosis.1) Mass Radiography.

The Eastern Regional Board were again kind enough to place their Mobile X-Ray Unit at our disposal for a week during February and every student was invited to attend for miniature X-ray examination of the chest.

Each student was notified individually and given an appointment to attend; out of 780 students notified, 565 (72 per cent) attended. Many of the absentees had been radiologically examined in recent months in connection with routine health examination or Mantoux testing and several others notified a genuine excuse for absence.

The results of the survey are given in the following Tables:

Table 1.

| No. | Attending for Miniature X-Ray | Recalled for Large Film | Suspect. Active T.B. Recalled Clin.Exam. | Inact. T.B. | Other X-Ray Abnor- mality |
|---------|----------------------------------------|----------------------------|---------------------------------------------------|----------------|------------------------------------|
| Males | 423 | 34 | 1 | 1 | 4 |
| Females | 142 | 8 | 2 | - | - |
| Total | 565 | 42 | 3 | 1 | 4 |

those obtained in last year's survey.

The three cases in which active pulmonary tuberculosis was suspected have all been carefully investigated.

Table 2. Presence of an active

| Faculty | Males | Recalled for Large Film | Suspect. Active T.B. Recall. for Clinical ex. (A) | Sus. Inac. Pul. T.B. (B) | Other X- Abnormal (C) |
|-------------|-------|-------------------------------|---------------------------------------------------------------|-----------------------------|-----------------------------|
| Engineering | 68 | 11 | 1 | | 1 |
| Science | 80 | 8 | | | 2 |
| Arts | 30 | 1 | | | 1 |
| Law | 30 | 2 | | | |
| Dental | 59 | 7 | | | |
| Medicine | 156 | 5 | | 1 | |
| Total | | | | | |
| Males | 423 | 34 | 1 | 1 | 4 |

Table 3.

| Faculty | Females | Recalled for Large Film | Sus.Active T.B. Recall. for clinical examination (A) | Sus.Inact. Pul. T.B. (B) | Other X- Abnormal (C) |
|----------|---------|-------------------------------|------------------------------------------------------------------|--------------------------------|-----------------------------|
| Science | 41 | 2 | | | |
| Arts | 38 | 2 | 1 | | |
| Law | 2 | | | | |
| Dental | 7 | 1 | 1 | | |
| Medicine | 54 | 3 | | | |
| Total | | | | | |
| Females | 142 | 8 | 2 | | |

These figures are a considerable improvement on those obtained in last year's survey.

The three cases in whom active pulmonary tuberculosis was suspected have all been carefully investigated.

Investigation has confirmed the presence of an active tuberculous lesion in one case and the student concerned has been referred to her Area Tuberculosis Authority for further treatment. The other two cases remain under observation. In one case the lung condition is definitely tuberculous but its activity is doubtful; the other case has shown signs of healing during the few months he has been under observation.

2) Note on Cases reported in Last Year's Survey.

Report for the academic year 1949-50 showed that three students had been admitted to sanatoria for treatment for pulmonary tubercle.

Case 1. Made excellent progress and was radiologically clear after expansion of the lung following on one artificial pneumothorax treatment. He continues under supervision but has remained in good health.

Case 2. A case of fibrocaseous tuberculosis left upper lobe. Progress was slow and the response to artificial pneumothorax treatment disappointing. Surgical treatment was advised but the student's parents requested a further trial of conservative treatment and the student is at present under the care of his Area Tuberculosis Authority. Slow improvement is reported.

Case 3. "Cavitation right mid zone - soft mottling left upper zone." This case was under sanatorium treatment for some six months. She made excellent progress and was discharged to remain under the supervision of her local Tuberculosis Authority.

of/

Of the other students reported last year, who continue under regular supervision and X-ray, all but one have maintained satisfactory progress. One developed signs of activity towards the end of this present academic year. He was able to complete his studies for the year and was then admitted to his local sanatorium for further observation and treatment.

3) Mantoux Testing and B.C.G. Vaccination.

During the present year, forty-five medical students attended for Mantoux testing. Eight gave a negative reaction and of these, five who requested it, were inoculated with B.C.G. vaccine. These five all showed a successful "Take" without any adverse reaction.

4) Student Tuberculosis Centre.

For some time the various student organisations and societies in this country have been pressing for their own sanatorium for the care and treatment of students suffering from tuberculosis. Something on the lines of the Sanatorium Universitaire Suisse at Leysin was the original aim. A British Co-ordinating Committee of Student Health was formed, with representatives from all interested bodies, and gave very full consideration to all aspects of this problem.

It has now been decided that the problem of the care of students suffering from tuberculosis, as it presents itself in this country, will best be met by the establishment of a Student Tuberculosis Centre to deal with the "post-cure" or rehabilitation phase of treatment. The proposed Centre will attempt the atmosphere of a university/

university rather than of a hospital and will provide facilities for selected students continuing their studies while remaining under expert medical observation and supervision.

Recently an appeal for contributions was launched among the various universities. University College made a notable effort. A small Committee was formed with representatives of the teaching staff and the various student organisations and a "Tuberculosis Centre Week" was organised. During the week, with the help of several members of Staff, it was possible to visit every class in the College and in the Senior Medical School and explain to the students something of the nature of the problem and the reason for the appeal. During the week various functions were organised by the students themselves and from these a sum of £57. was collected and handed over as a donation to the Trust Fund.

It should be noted that the question of tuberculosis in students is still receiving very careful attention by the British Co-ordinating Committee for Student Health. The incidence of the disease among students is known to be relatively high and a detailed investigation is at present being carried out. The Committee are kept informed of our own figures.

Notes on Cases of Interest.

1) A Third Year medical student, who had been under observation for some time as a case of bronchiectasis, reported at the end of last academic year that he had failed/

failed in all his professional examinations and had decided to give up his medical career. He was persuaded to postpone that decision until a more thorough investigation of his physical condition could be carried out. As a result of the the investigation, and consultation with Dr. McIntosh, Consultant in Tuberculosis, and Mr. Fallon, Thoracic Surgeon of the Eastern Region, surgical treatment was advised. After the necessary physiotherapy and pre-operative treatment, the operation of lobectomy was successfully undertaken later in the year. The student is now active again, vastly improved in health and in a better frame of mind to take decisions as to his future.

2) A Fourth Year Medical student attended early in the year and gave a history of recurring attacks of jaundice. There was little impairment to his general, physical condition, and apart from a pronounced but varying degree of icterus, abnormal and physical signs were practically absent. Laboratory investigation excluded some of the commoner varieties of jaundice but certain findings were of a rather unusual nature. Professor Hill of the Department of Medicine, and Drs. Smith and Prain of the Department of Pathology, undertook a very careful haematological examination during an acute phase of the condition and a diagnosis of acholuric jaundice of the so-called "acquired" type was established. The student remains under observation pending a possible splenectomy being carried out.

3)/

3) Last November, a Final Year medical student reported with a history of a sudden and severe haematuria without accompanying pain or tenderness. Intravenous pyelography showed complete failure of one kidney to excrete any dye. By direct pyelography an enlarged kidney and hydronephrosis was made out. For domestic reasons, the student had to return to South Africa for operation and we have had information that a partial nephrectomy and plastic reconstruction has been successfully performed. Full details of operation and histological findings are not yet available.

4) A student admitted to hospital as a possible case of schizophrenia was noted in last year's Report. Unfortunately this diagnosis has been confirmed. The student has now been transferred to the Crichton Royal Hospital, Dumfries, for insulin therapy and possibly for pre-frontal leucotomy.

An interesting and gratifying feature of the Student Health Service has been the steady increase in the number of students who come for advice on personal health problems as distinct from ordinary illness. It has also been possible to help young, married students in some of their difficulties and occasionally to arrange specialist treatment or advice for their wives when required.

Again two Final Year medical students had the misfortune to develop infectious illness during the period of their Final examinations. Notification to the Departments concerned was enough to enlist their willing co-operation/

co-operation and special facilities were arranged whereby the students concerned were able to complete their examinations. The investigation and treatment of some of these above-mentioned students involved the co-operation of different Clinical and other Departments of the University and of local hospitals. These facilities are open to any member of the general public, but I think the ready access to specialist treatment or opinion, notification to parents or teachers when required, and sometimes the provision of some special facility to meet the needs of particular cases, have all served to emphasise to students that their own University now provides a fairly comprehensive Health 'Service' which is there to cater for their needs as individuals. This fact seems as worthy of note as the number of attendances made during the year and for their invaluable contribution in bringing it about I am deeply indebted to many colleagues in clinical departments, laboratories etc.

Conferences and Visits.

At the invitation of the Student Health Committee of Aberdeen University, Medical Officers from several of the universities met for an informal conference last September. The exchange of views was most useful and stimulating and it is hoped to continue a conference of this nature annually. This year the Student Health Committee of Sheffield University have kindly offered to be hosts.

In July of this year, the Nuffield Foundation is sponsoring a Student Health Conference to be held at Downing/

Downing College, Cambridge, at which all the British Universities are to be represented. 'Mental Health' and 'Tuberculosis among Students' are two of the principal items on the agenda. Among several visitors to the Health Service this year, it was a pleasure to welcome Dr. Ruth Boynton, administrative head of the Student Health Service of the University of Minnesota, and Dr. Raphael, head of the Psychiatric Department of the Student Health Service of the University of Michigan. These universities have respectively twenty thousand and seventeen thousand matriculated students and each employs something like ten or twelve full-time medical officers with numerous part-time assistants in special departments. Their administrative problems are therefore very different from our own but in a most interesting exchange of views with these two doctors, it was very gratifying to find a similarity of outlook with regard to the approach to some of the problems of student health.

Acknowledgment..

It is a pleasure to acknowledge with gratitude the courteous and willing assistance given to the Student Health Service by so many people.

Professors and Senior assistants of the various clinical departments of the Dundee Royal Infirmary have been most helpful in their arrangements for seeing students referred to them for opinion or treatment.

Dr. McIntosh, Consultant in Tuberculosis, has placed every facility of the Chest Clinic at our disposal and has/

has advised on the disposal and treatment of all cases, or suspected cases, of tuberculosis among students. Through his good offices and with the assistance of Dr. Lockhart of the same Department, the Mass Radiography Survey was again made possible.

Dr. Jamieson and the Staff at Kings Cross Hospital have always provided accommodation for cases of infectious illness which had to be removed from lodgings or Halls of Residence.

To these and many others my grateful thanks are due.

Conclusion.

This Report comments on some aspects of the work of the Student Health Service during its third year in operation and shows the number of attendances/visits made and of routine medical examinations carried out. All figures except these with regard to voluntary medical examination show an increase over these for previous years.

An Appendix, less detailed than in former Reports, classifies conditions treated during the year and gives figures for cases referred to specialists and admitted to hospital.

(Signed) H. J. GIBSON,

Hospital Admissions.

Medical Officer.

During the year 15 students required treatment in hospital for the following conditions:

Surgical

Ischaemic-Rectal Abscess
Bronchiectasis
Hydrocephalus
Varix
Injury Knee Joint

APPENDIX

Attendances.

The number of students seen during the year for examination and/or treatment (exclusive of Mass Radiography and B.C.G. Schemes) was 505. These were drawn from the various Faculties as under:

| | | |
|--------------|-------------------------|-----|
| <u>Men</u> | Arts and Law | 29 |
| | Science and Engineering | 138 |
| | Medicine and Dentistry | 232 |
| <u>Women</u> | All Faculties | 106 |

The number of attendances made during the year was 1866.

| | |
|---------------------|------|
| At Consulting Rooms | 1501 |
| In Quarters | 305 |
| Routine Examination | 60 |

.....

| <u>Classification of Conditions Treated.</u> | <u>No.Visits</u> Made | <u>No.Stude</u> Seen |
|----------------------------------------------|--------------------------|-------------------------|
| Diseases of the Respiratory System | 298 | 97 |
| Diseases of the Ear, Nose and Throat | 275 | 93 |
| Minor Sepsis and Minor Injury | 192 | 68 |
| Infectious Diseases including Influenza | 185 | 46 |
| Diseases of the Skin | 167 | 56 |
| Diseases of the Digestive System | 158 | 49 |
| Miscellaneous Conditions | 166 | 70 |
| Diseases of the Eye and Visual Defects | 136 | 62 |
| Psychological Conditions | 80 | 21 |
| Orthopaedic Conditions | 70 | 17 |
| Diseases of the Genito-Urinary System | 60 | 15 |
| Diseases of the Cardio-Vascular System | 40 | 4 |
| Dental Conditions | 36 | 12 |
| Diseases of the Central Nervous System | 3 | 1 |

Hospital Admissions.

During the year 16 students required treatment in hospital for the following conditions:

| | |
|-----------------|-----------------------|
| <u>Surgical</u> | Ischeo-Rectal Abscess |
| | Bronchiectasis |
| | Hydronephrosis |
| | Varix |
| | Injury Knee Joint |

| | |
|---------------------------|------------------------------------------------------------------|
| <u>Medical</u> | Investigation C.N.S. Duodenal Ulcer Pleurisy with effusion |
| <u>Infectious Disease</u> | Measles Chickenpox |
| <u>Gynaecological</u> | Dysmenorrhoea |
| <u>Mental</u> | N.Y.D. Psychosis |
| <u>Skin</u> | Erythema Multiforme |
| <u>E. N. T.</u> | Streptococcal Tonsillitis |
| <u>Dental</u> | Post-operative Haemorrhage |
| <u>Tuberculosis</u> | Pulmonary Tuberculosis |

Cases Referred for Specialist Opinion.

| | | |
|--------------|-----------------------------|----|
| | Medical | 9 |
| | Surgical | 9 |
| | Dental | 6 |
| | Dermatological | 5 |
| | E. N. T. | 5 |
| A. General | Orthopaedic | 5 |
| | Gynaecological | 1 |
| B. Survey | Psychiatric | 1 |
| | To Chest Clinic | 4 |
| C. Apparatus | To Physiotherapy Department | 6 |
| | Eyes | 28 |

X-Ray, Laboratory etc. Examinations.

| | |
|-------------------------------|-----|
| Miniature Chest Radiography | 565 |
| Recalled for Large Film X-Ray | 42 |
| Chest X-Ray as part of | |
| Routine Medical Examination | 60 |
| Other X-Ray Examinations | 48 |
| Pathological Specimens | |
| examined | 29 |

National Health Insurance.

| | |
|------------------------|-----|
| Students registered as | |
| patients | 196 |

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UNIVERSITY OF ST. ANDREWS

UNIVERSITY OF ST. ANDREWS

STUDENT HEALTH SERVICE

(in Dundee)

Fourth Annual Report, Academic Year 1951-52

STUDENT HEALTH SERVICE Dundee,

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Senior Medical and Dental Schools, Dundee.

A. General Review and Summary of Figures for Attendance,
Medical Examiner Annual Report

B. Report on: Academic Year - 1951-52

- 1) Accommodation and equipment.
- 2) Records.
- 3) Routine medical examination.
- 4) At the University College, Dundee,
- 5) National Health Service arrangements.
- 6) Senior Medical and Dental Schools, Dundee.
- 7) Dietary intake of students.
- 8) Radiation Hazards Committee.
- 9) Dental examination.
- 10) Psychiatry and associated factors.
- 11) Pulmonary tuberculosis.

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A. General Review and Summary of Figures.

B. Survey of Work done, Report and Comments.

C. Appendices.

- 12) College Hostels - Medical certification.
- 13) Conferences.....ooo.....
- 14) Liaison.
- 15) Acknowledgments.
- 16) Conclusion.

D. Appendices:-

- 1) Analysis of conditions Dr.H.J.Gibson, 1 admissions
- 2) Liverpool University Medical Officer.
- 3) Summary of medical attendance etc. 1943-52.
- 4) Results of Pilot survey on social and economic circumstances of Dundee students.

UNIVERSITY OF ST. ANDREWS

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STUDENT HEALTH SERVICE

Fourth Annual Report. Academic Year 1951-52

University College, Dundee,

Senior Medical and Dental Schools, Dundee.

A. General Review and Summary of Figures for Attendance, Medical Examination etc.

B. Report on:-

- 1) Accommodation and equipment.
- 2) Records.
- 3) Routine medical examination.
- 4) Attendance.
- 5) National Health Service arrangements.
- 6) Supplementary Ophthalmic Service
- 7) Dietary intake of students.
- 8) Radiation Hazards Committee.
- 9) Dental examination.
- 10) Psychiatric conditions and associated factors.
- 11) Pulmonary tuberculosis.
 - 1) Mass Radiography.
 - 2) Incidence.
 - 3) Mantoux testing of medical students and B.C.G. vaccination.
 - 4) Review of cases reported in previous years.
 - 5) Student Tuberculosis Centre.
- 12) College Hostels - Medical certificates.
- 13) Conferences.
- 14) Liaison.
- 15) Acknowledgments.
- 16) Conclusion.

C. Appendices:-

- 1) Analysis of conditions treated, hospital admissions etc
- 2) Liverpool University medical examination form
(omitted from copies).
- 3) Summary of medical attendances etc. 1948-52.
- 4) Results of Pilot survey on social and economic
circumstances of Dundee students.

5 Airlie Terrace,
Dundee,
July, 1952.

Men

442

Women

117

Total 559

STUDENT HEALTH SERVICE

St. Andrews University

(in Dundee)

Fourth Annual Report. Academic Year 1951-52.

A. The following Table summarises the general work of the Student Health Service during the year under review and shows at a glance figures relating to the main features of the work. For these interested, more detailed figures are given in Appendix (1) to the Report.

1) No. of matriculated students (University in Dundee).

| | | |
|---------------------------------|-----|-----------|
| Medical and Dental Schools | 218 | |
| Degree and Diploma in Education | 28 | |
| University College, Dundee | 498 | |
| Occasional Law students | 23 | Total 767 |

2) Entrant students - Dundee, 1951-2. 120

3) No. of medical examinations carried out during the year.

| | | |
|--------------------------------------------------------------------------------------------|----|-----------|
| a) Voluntary interview and full medical examination | 56 | |
| b) Students medically examined for entry into College residences | 63 | |
| c) Medical examinations for special purposes - e.g. entry into H.M.Forces, emigration etc. | 24 | Total 143 |

4) Students attending for treatment during illness.

| | | | |
|--------------|-----------------------|-----|-----------|
| <u>Men</u> | Medicine & Dentistry | 221 | |
| | Science & Engineering | 142 | |
| | Arts & Law | 20 | |
| <u>Women</u> | All Faculties | 92 | Total 475 |

5) Members of Staff treated 27

6/ The year under review has seen an expansion in nearly every/

6) Students attending for miniature chest X-ray

| | | | |
|-------|-----|-------|-----|
| Men | 442 | | |
| Women | 117 | Total | 559 |

7) Attendance for treatment

| | | | |
|---------------------|------|-------|------|
| At Consulting Rooms | 1571 | | |
| In quarters | 262 | Total | 1833 |

8) Total attendance examination/treatment excluding M.R. X-ray. 1976

9) Total all attendances treatment and examination 2535

10) Students admitted to hospital 22

11) Students referred to specialists 64

12) Students referred to Chest Clinic 4

13) Students examined under supplementary Ophthalmic Service 18

14) Tuberculosis

| | |
|----------------------------------------------|----|
| 1) Admitted to Sanatoria | 2 |
| 2) Discharged from Sanatoria | 3 |
| 3) Under observation from previous years | |
| a) Still requiring regular X-ray examination | 2 |
| b) Healed | 12 |

15) No. of students registered as N.H.I. patients

| | | | |
|-----------|-----|-------|-----|
| | 217 | | |
| Temporary | 4 | Total | 221 |

General Review.

In order to present this Report at a convenient time, figures given in the foregoing summary relate to work done during the period 1st July, 1951 - 30th June, 1952. To ensure uniformity this practice will be adhered to in future years.

The year under review has seen an expansion in nearly every/

every aspect of the work of the Health Service. The slight decrease in the number of students attending for treatment - 475 as against 505 during the year 1950-51 - merely reflects the difference in the number of enrolled students during these years. The total number of attendances, however, was greater than in any previous year.

Routine health examination was asked for by fifty-six students, approximately half the First Year intake. This figure has remained at or about a steady level during the four years the Health Service has been in operation and unlikely to alter much while examination remains on a voluntary basis. It should be noted, however, that 475 students attending for purposes of treatment were examined as fully as their condition required.

Attendance at Mass Radiography examination was satisfactory, 559 students out of 724 notified (76 per cent) attending for examination. It is satisfactory to record that only one student showing signs of active tuberculosis was discovered. It is submitted that attendance for miniature chest radiography be made compulsory for every student annually.

The number of attendances made in connection with medical advice or treatment is the highest we have recorded. Many students appear to take the view that medical examination in health can be dispensed with in the assurance that there will be prompt and adequate attention during illness. The point of view may have something to commend it but the "health" aspect of the Service should not be neglected.

The/

The figures given in the Report refer only to students who have been dealt with by the Student Health Service. The remaining students have either required no medical attention of any kind or have remained under the care of their family doctor. Exact figures for these two categories are not known.

Certain members of Staff - teaching, non-teaching and domestic - have made use of facilities provided by the Health Service. No figures applicable to these are included in this Report.

The rest of the Report discusses in greater detail certain aspects of the work of the Student Health Service during the year. Appendices to the Report analyse figures for attendance, conditions treated etc.

Accommodation and Equipment.

The Consulting Rooms at 5 Airlie Terrace continue in use. They are central as regards both College premises and Halls of Residence and have proved in every way suitable. The main items of expenditure for the Student Health Service now fall under the main heads of a) Salaries of staff b) Maintenance of property c) Office administration and d) a small sum for replacement of expendable medical and surgical equipment. There is now very little outlay on drugs, dressings etc., most of which are obtained through the National Health Service supply.

The small sick bay in West Park Hall has been in use and is of value for the isolation of cases of suspected infectious disease. Similar accommodation has been arranged in University College Hall and has been in frequent use. The absence of any planned accommodation of this nature in the William Low Residence has not proved a very serious handicap; the Warden and housekeeper there have always been able to make satisfactory arrangements for students not so seriously ill as to require admission to hospital. Cases of suspected infectious disease can usually be admitted to King's Cross Hospital.

The main problem concerns students in lodgings when they develop illness of moderate severity but not such as to justify admission to hospital. Many landladies have proved most kind and helpful, taking great trouble over their/

from and figures would tend to be of doubtful validity

their student boarders during illness. But some, with the best will in the world, are unable to add nursing duties to their own domestic ones and in these cases it is sometimes difficult to make satisfactory arrangements for the students concerned.

Records.

The "Oxford" Record Form is still in use and a copy is maintained for each student making use of the Health Service. This Form is designed for recording in a uniform manner the findings at medical examination, and certain information concerning social and economic circumstances. It is less concerned with recording medical "returns" of attendance during illness or disability. The form is designed to allow easy reduction to a punch card system for statistical analysis. The Institute of Social Medicine, Oxford, kindly offered their assistance in analysing "transcripts" of these record forms. I have not taken advantage of the offer this year, as to have done so would have meant delay in the presentation of this Report. Also the form has its greatest value when the findings at physical examination can be correlated with certain data on social and economic circumstances. It is usually possible to record all these factors only in the case of those students who voluntarily attend for interview and full medical examination. It would be simple to record here average height, weight, haemoglobin level etc. of those examined but with the relatively small numbers availing themselves of this facility, any deductions from/

from the figures would tend to be of doubtful validity and I am not, at present, including them in these Annual Reports.

I return to the point later in this Report, but one of the reasons why I should like at least medical "interview" made compulsory for all entrant students, is that it would allow me to make an accurate assessment of the social and economic background applicable to each student, and would make available to the University authorities much factual information on these points, not readily obtainable from any other sources at their disposal.

In an attempt to overcome the difficulty, I submitted to each student who attended for miniature chest radiography, a questionnaire in which he was invited to give certain information concerning economic circumstances and academic performance. I hope to have completed an initial study of the replies in time to include a resume of the findings in this Report. The investigation is to be regarded only as a tentative pilot survey which may point the way to a more detailed inquiry throughout the College as a whole.

Routine Medical Examination.

Each year the Medical Officer is given an opportunity to address all entrant students and outline to them the various facilities offered by the Student Health Service. What use a student cares to make of this Health Service is entirely a matter of his own choice - there is no element of compulsion either as regards attendance for medical examination in health or for advice or treatment during illness.

This/

This year fifty-six students, just over half the First Year entrants, attended voluntarily for interview and full medical examination. Practically all of these, not permanently domiciled in the area, registered as National Health patients. This initial examination in health makes the most satisfactory introduction to a student. It may only infrequently reveal defects of which the student is entirely ignorant but there are other advantages. Known abnormalities can be discussed and advice given. Information concerning the student's living conditions, social and economic circumstances can be obtained which is not readily available to other sources in the University. The Medical Officer has an opportunity of assessing the character of the student concerned and his probable reaction to the University environment. His knowledge of the student in health may be of value should treatment subsequently be required during illness. In addition to students attending voluntarily for full medical examination, 63 students were examined during the year for entry into College residences and 24 for special purposes such as entry into H.M. Forces, emigration etc. For students in these latter categories, it was not always possible to complete our own records on matters relating to living conditions, academic performance etc. Of the 475 students, drawn from all years in all Faculties, who attended for treatment during the year, 203 have attended for medical examination at least once during their academic career. Of the 969 students who

have been treated at some time during the past four years, 361 have undergone medical examination at least once.

During the three years 1948-51, all students attending for routine medical examination were sent for large film X-ray examination of the chest. In this present year, owing to an acute shortage of X-ray films, we were asked to suspend this part of the examination meantime and to restrict it to students for whom it seemed advisable on clinical grounds.

As regards voluntary medical examination, the records show that about half the average intake of students in any one year attend for examination, and that in four years rather less than half the students attending for purposes of treatment have at least once during their course attended also for medical examination.

In this, we are only following the experience of other universities that as long as medical examination remains on a voluntary basis only a minority of students takes advantage of it. There are arguments for and against making medical examination compulsory. It would be profitless to enter into these arguments here. If the University Court still decide that medical examination remains on a voluntary basis at the option of the individual, nothing more can be said. But most universities are now tending to require that every student attend for medical examination at some time during his career.

I respectfully submit that the University Court might/

might usefully reconsider its present policy and introduce one or two regulations on the lines set out below. The effect of these would be, while avoiding any actual compulsion, to ensure that a majority of students are medically examined early in their academic career.

1. A Regulation requiring every student on being notified of his acceptance into the University, to attend for medical examination by his family doctor. A specially designed form would be submitted to each student along with notification of his acceptance. On this form the student is asked to give certain details of past illnesses and medical history. The other part of the form is completed by the family doctor a) in respect of findings at physical examination and b) in respect of the doctor's opinion into which of three medical classes the student should be placed. These are:-

- 1) Those in good health and free from any physical or mental defect.
- 2) Those with minor or stationary defects unlikely to be effected by a university career.
- 3) Those whose physical or mental condition make it desirable that they be reviewed by the University Medical Officer.

These forms would be submitted direct by the family doctors to the University Medical Officer who would be empowered to review any doubtful cases. There is no reason why the University authorities should not reserve to themselves the right of rejecting any student, the

subject of an adverse medical report from both family doctor and University Medical Officer. The system does not call for excessive "form filling." It has been adopted successfully in Liverpool University, who report excellent co-operation from practitioners in their area. A copy of their examination form is attached in Appendix 2.

Such a scheme should work satisfactorily while medical examination after entry remains optional. It could be modified if my second suggestion is accepted.

2) A Regulation requiring every student during his first year of study to attend for "interview" with the Medical Officer. I feel that most students would elect to proceed to full medical examination - they would be allowed to fix an appointment therefore convenient to themselves, at any time subsequently during their first year of study. But such a Regulation would leave a loophole whereby the "Conscientious objector" could omit the medical examination if he so desired.

I earnestly request that some consideration be given to these two suggestions.

Medical Attendance.

We are again repeating the experience of other universities, that when a Health Service offers facilities both for medical examination in health and treatment during illness, the latter tends to be the one given priority by the students themselves.

I think - and there may be something to be said for their point of view - that most students look on health and reasonable fitness as things to be taken for granted. They would probably attend willingly for medical examination if required to do so, but "can't be bothered" when it is left a matter of their own choice. But when they are concerned in any way about their Health, most of them seem to appreciate a Health Service of their own which will care for them during illness. There is nothing personal in this - I have stressed from the beginning that this aimed at being not a "one -man show" but an integrated Health Service with consultant advice and opinion readily available in every department of medicine and surgery and thanks to the co-operation of many colleagues the Service here has developed on those lines.

Medical attendance is the busiest function of the Health Service. 475 students out of a total of 767, have attended during the year for some form of medical advice or treatment. (That figure does not include attendance for miniature radiography). Of the remainder, a proportion would require no medical treatment of any kind - relative figures cannot be ascertained in respect of these two categories.

The number of attendances at consulting rooms (1571) for purposes of advice or treatment, is the highest so far recorded. 262 visits were made to students in hostels or lodgings. These figures are analysed/

analysed in greater detail in Appendix (1) to this Report.

There was wide diversity in the type of conditions treated. It has been a constant finding in the four years work here, that ear, nose and throat conditions including upper respiratory tract infections head the list in order of frequency. This year these accounted for 20.5 per cent of all attendances, followed by diseases of the respiratory system 13.8 per cent, diseases of the skin 12.2 per cent, diseases of the digestive tract and minor sepsis and injury each 11.1 per cent. The frequency is shown in the following Table.

| | |
|------------------------------------------------------|------|
| Diseases of the Ear, Nose and Throat | 20.5 |
| Diseases of the Respiratory System | 13.8 |
| Diseases of the Skin | 12.2 |
| Diseases of the Digestive System | 11.1 |
| Minor Sepsis and Minor Injury | 11.1 |
| Orthopaedic, Joint and Muscle Conditions | 5.8 |
| Diseases of the Cardiovascular and Lymphatic Systems | 4.3 |
| Diseases of the Eye | 3.8 |
| Diseases of the Genito-Urinary System | 3.8 |
| Psychoneurotic Conditions | 3.2 |
| Diseases of the Central Nervous System | 3.1 |
| Dental, Infectious and Miscellaneous Conditions | 7.3 |

The subject of medical attendance requires mention of such factors as arrangements for admission to hospital, reference to specialists, the use of laboratory and X-ray facilities and the other ancillaries of medical practice.

As regards reference to specialists, we are now approaching the position wherein one specialist in each particular subject is coming to be recognised as the Consultant-Adviser for students in that subject. Some have/

have been good enough to make an arrangement whereby students can be referred to them on a particular day and time each week without prior appointment. This is a most helpful arrangement from the students' point of view and from my own, and if it gives students priority over members of the general public, I consider that their entitlement.

As regards laboratories and X-ray departments of local hospitals we are again in a privileged position as these facilities have been placed at the disposal of the Health Service in a way which is denied to local practitioners.

Unlike some other universities, we have no accommodation in any local hospital which is reserved exclusively for the use of students. When a student does require hospital treatment or investigation, I like to be able to justify his admission on clinical grounds but there has never been any difficulty in arranging admission to a local hospital or sanatorium without delay.

Up to the present, students wishing any medical treatment or advice have not been required to adhere to any fixed consulting hours. The Medical Officer has been available in the consulting rooms the entire working day, except for absence on domiciliary visits, the "calls" to these being dealt with as they come in. As numbers increase, however, this practice may have to be modified and consulting hours held at fixed times during the morning and afternoon. These will be so arranged as to cater as far/

far as possible for every student timetable.

National Health Service.

The position here is much as in former years. The Medical Officer is included in the list of medical practitioners undertaking to provide general medical services for persons resident in the area administered by the Dundee Executive Council. The term "persons" in this case is restricted to full time university students not permanently domiciled (i.e. living with their parents) in the Dundee area.

Most students are now aware of the various benefits to which they are entitled under the National Health Service, in their case with exemption from the weekly contribution levied on those in paid employment.

Many First Year students, from homes outside Dundee, transfer their medical card to the Student Health Service at the commencement of their studies - more do so on the first occasion they require medical attention or treatment. 217 students are registered as patients at present. In some cases when it is expedient for any particular reason to leave a student on the list of his family doctor, treatment can be given as a temporary patient, the registration remaining effective up to three months. The number of patients in this category varies from time to time. Capitation fees in respect of all National Health patients are paid direct to the Quaestor and Factor of the University.

The central situation of the Health Centre, its convenient consulting hours and the ready access provided to/

to laboratory, X-ray and other services have appealed to many students who live permanently in Dundee and are therefore not acceptable as National Health patients. These students have always had all facilities placed at their disposal on the assurance that their family doctors approve the arrangement. So far the family doctors always have approved and in fact many refer their student patients here as a routine measure.

There were minor difficulties about prescribing etc. and a more logical arrangement would have been to allow the Student Health Service to accept as National Health patients all students during their university years whether permanently or temporarily domiciled in Dundee. An application on these lines was submitted to the Dundee Executive Council asking also that new members of Staff coming to reside in this area might be included. The Council, however, would not agree to allowing the Student Health Service to accept as National Health patients those students who reside with their parents in this area.

But a working agreement has been arrived at, that both parties will play fair and be of mutual help where it can benefit the student concerned. In practice the arrangement works very well.

Supplementary Ophthalmic Service.

There are no administrative difficulties concerning this part of the National Health Service. Any physician is free to refer a patient to an ophthalmic surgeon or optician for sight testing or other/

other examination. The proportion of students requiring glasses for some purpose is a fairly high one.

I refer a number of these (and also some members of Staff) to local ophthalmologists for full refraction testing and eye examination. During this year eighteen students were so referred, of whom seventeen were supplied with glasses at the reduced rate chargeable under the Ophthalmic Service.

Dietary Intake of Students.

The first Annual Report (1948-9) included the result of an investigation by Dr. R. P. Cook of the Department of Biochemistry, into the dietary intake of Dundee students.

Dr. Cook has been carrying out further studies but detailed results are not yet available. I hope to have his permission to include them in a later report. He empowers me to state here that investigations to date have not disclosed one single student whose dietary intake is below a satisfactory level.

Radiation Hazards.

The Medical Officer was invited to become a member of the Radiation Hazards Committee formed under the chairmanship of Professor G. D. Preston, Department of Physics.

On investigation it was found that several workers in the Department of Physics are using X-Rays regularly in the study of crystal structure etc. and many of these workers are exposed almost daily to a fair amount of scattered irradiation.

The/

The recommendations of the British X-Ray and Radium Protection Committee as regards working hours and other conditions have always been observed in the Department. The amount of X-radiation received by individual workers is systematically checked by the use of pocket photographic films and latterly of a more elaborate and sensitive dosimeter.

Nevertheless it was thought advisable to carry out regular blood examinations for all members of Staff and research students regularly engaged in this type of work. This was arranged in co-operation with the Clinical Pathologist of the Royal Infirmary. All these workers have been examined once every term throughout the present academic year. One did in fact show a total lymphocyte count below normal limits and was advised to discontinue this type of work until a further blood count is carried out.

Dental Examination.

From observation of the students who attend for medical examination or for treatment, my impression is that the general standard of dental hygiene is good and that most students take the trouble to have their teeth regularly inspected and any necessary treatment carried out. The Dental Hospital here has always been helpful in carrying out any operative treatment, investigation etc. for which I have referred numerous students.

I should have liked from the beginning, a complete dental examination carried out on each student attending for/

for full medical examination, and a dental record card kept as part of my own records. This has not been possible to arrange so far.

Now, however, Mr. Bradford of the Staff of the Dental Hospital, has kindly offered to take on the routine dental examination of all students attending the Health Service for medical examination, and to maintain systematic records of examination findings and of subsequent progress. These will be summarised and included in future Annual Reports.

Final details have yet to be discussed but it is hoped to make a start with this arrangement and to hold regular sessions from the beginning of the Martinmas term in the ensuing academic year.

Psychiatric Conditions.

In past Annual Reports I have devoted considerable attention to the subject of the incidence of psychotic and psychoneurotic illness in students, as I consider it one of the most important aspects of student health work.

The opening speaker on the subject of Student Health at the Home Universities Conference held last year in London, made these remarks, "There were one hundred and forty-five cases of prolonged illness (i.e. at least one term's absence) in three years at Oxford University. More than half of these were stated by college authorities to have been due to mental and nervous breakdown. Tuberculosis accounted for less than one quarter. There are two points to/

to be made. First, the criterion for prolonged illness was objective, and secondly, the notifications represent a minimal statement. The results raise an important question. How far should mental ill health be regarded as a particular hazard of student life compared with other occupations? One fact from another field may help to set this information in perspective. Between one third and one half of all medical invalids, men and women alike, were discharged from the Services on psychiatric grounds during the last war. This is not comparable with the student problem, but it will do to indicate very roughly what might loosely be called general expectation. One can conclude only that there is a problem of mental ill health, larger than and quite as serious as, at least as far as the university is concerned, that caused by tuberculosis. It certainly does not appear to be less among students than others, as might be hoped on the grounds of careful selection."

In the year under review, we have had no case of serious psychosis occurring in a student such as to require certification or admission to mental hospital.

There have been several students under constant observation or treatment suffering from a psychoneurosis of sufficient severity to cause a good deal of mental suffering or interference with attendance at classes. In another group of students, numerically a much greater one, the headache, dyspepsia or insomnia complained of were but the somatic manifestations of underlying mental stress or tension.

When I first began student health work, there was a general feeling among experienced workers in this field, that the incidence of psychoneurotic illness among students was unduly high. In dealing with my own students therefore, I was a little apprehensive lest I be treating on ordinary, conservative lines some condition which merited a long and fancy psychological label. My approach now, when confronted with a student complaining of or displaying any psychological abnormality, is to attempt to answer on question as soon as possible. "Is this the beginning of a serious, psychotic disorder?" If the answer is "Yes", I request the guidance of a psychiatrist (sometimes also taking into account the views of the student's parents and teachers) in planning the treatment required for that particular student and in assessing the effect of the illness on his or her subsequent academic career. If the answer is "No", I prefer to avoid psychological terminology and to look on the student as someone wanting assistance in the solution of a personal problem.

The negative answer, though it may take some time to arrive at it, is much commoner. Most students in this category react well to an objective examination of their problem, sympathetic consideration given to it (which does not exclude straight talking when required) and the opportunity generally to get things "off their chest". Many factors underlie these emotional upsets. In my own experience, difficult home/

home conditions and worries about examinations or academic performance are the factors most commonly met with. Sexual difficulties, unhappy love affairs are seldom in evidence. The treatment of these students often requires much time and patience. But the work is interesting, the results are gratifying and few aspects of student health work pay better dividends.

During the year, four students in the more seriously psychoneurotic category were referred to consultant psychiatrists for advice. I have to thank Dr. Fraser Steele and Dr. Uytman for their willing and generous help in these cases.

Since the Student Health Service was initiated here in October 1948, three students have been admitted to mental hospitals. A note on their progress may be of interest.

Case 1. 3rd Year Arts girl student. Family history of insanity. Became seriously disturbed mentally during her last term at College and after emergency treatment was placed at home under the care of her family doctor and a local consultant. She returned after a few weeks to complete her classes. The family have now left the district and I can obtain no accurate information but I believe the girl has required psychiatric treatment on subsequent occasions.

(Reported 1948-9)

Case 2/

Case 2. Honours Science male student. Developed symptoms suggestive of schizophrenia and was admitted to a local mental hospital as a voluntary patient. No lasting benefit from electro-convulsive or insulin shock therapy. Was transferred to Crichton Royal Hospital, Dumfries, where a prefrontal leucotomy was performed. Result has been fair and the student improved sufficiently for a time to resume some demonstrating work in a College Dept. The improvement was not wholly maintained and he is again under observation in hospital. (Reported 1949-50).

Case 3. 1st Year Medical male student. Acute mental breakdown with schizophrenic symptoms, certified and admitted to a local mental hospital and was discharged after six months. The University authorities acceded to repeated requests from the parents and allowed the boy to resume his studies here. He remains under observation and I should prefer to delay judgment on his academic future. (Reported 1950-1).

One final word on this subject. We can avoid elaborate terminology and discuss it in every day language. A fair number of students show signs of emotional stress and strain or of wear and tear on their nerves at some time during their academic career. It is not surprising. This generation of students faces problems/

problems and difficulties which were unknown to its teachers who qualified between the wars. A section of these teachers implies that the modern student is compensated for these difficulties by being coddled and 'feather-bedded' at every turn. I agree that it is easy to exaggerate this problem of emotional illness among undergraduates - but it would be wrong to ignore it. I think there is a problem, and its solution will require the joint efforts of all who in any capacity deal with students. But I agree with the critical section of teachers to this extent, that too much can be done for the undergraduate and that standards should be based on the requirements of the emotionally stable majority and not on those of the unstable minority.

I quote the words of one speaker at the Conference on Student Health held last year at Cambridge. He was referring particularly to medical students but his remarks are capable of a wider application and seem to me to contain much common sense.

"May I end on a rather more controversial note? It is to state my opinion that for those who are intending to take up the arduous, responsible and worrying career of Medicine, it is not a bad thing if there happens to exist some kind of mechanism which tends to reveal the psychological weaklings. Nearly all of us I suppose must have disliked the stressful circumstances of examinations. Many of us may have shown our merits less clearly than we might have/

have done, simply because of that stress. But few of us, who qualified before the war, broke down from this cause, nor is there much evidence to show that many break down from it today. If a medical student cannot take in his stride the strain of his examinations, even the large final examination, let alone these which precede it, it cannot augur well for his stability of temperament, when as a doctor he becomes responsible for his fellows often under conditions of the utmost anxiety for him. There is today a tide of sentiment in favour of making the lot of students easier and happier. I cannot say how strongly I support this in general. There is much room for improvement in many aspects of their lives. Let us, for instance, never cease agitating on their behalf for the removal of dead wood from the curriculum; much of it has long since become fossilised. Let us ever be critical, both personally and generally, of our teaching. Let us seek to rationalise examinations; and most particularly strive to perfect our methods of selection, so that only those who can make good use of a university education are admitted to our Faculties. But I hope, nevertheless, that in considering the interesting problem of those too tender-minded to tolerate examinations, we teachers shall not do the ordinary student the profound disservice of exaggerating the difficulties which confront him in these tests. For these difficulties are inseparable from the business of revealing the knowledge and wisdom he has accumulated over/

over the years; in other words from the very business of being a student."

Those remarks reflect very accurately my own opinions on this subject.

Pulmonary Tuberculosis.

1) Mass Radiography Survey.

By courtesy of the regional Tuberculosis Authority, their Mobile X-Ray Unit was again placed at our disposal and for the third year in succession a Mass Miniature Radiography survey was carried out. The Unit was located in the College area for one week during February, and every student in the College, Medical and Dental Schools, was given an appointment to attend. There was very little interruption of classes and the entire survey, including students recalled for large film examination, was completed within five days. Students who attended kept their appointments punctually and their behaviour throughout was exemplary.

Members of Staff, teaching, non-teaching and domestic, were given an opportunity to attend. 86 of these accepted but are not included in the Table shown below which summarises results of the Survey.

Group B. Inactive form of pulmonary tuberculosis.

Three students were found in this group.

Further investigation has cleared one, the

remaining two are still being checked by

radiological examination at regular intervals.

Group C/

Group C. Other radiological normality. Table 1.

| Faculty | Males | | | | Females | | | | Total |
|--------------------|-------|---|---|---|---------|---|---|---|-------|
| | No. | A | B | C | No. | A | B | C | |
| Law | 22 | - | - | - | 6 | - | - | - | 28 |
| Medicine | 171 | - | - | - | 56 | - | 1 | 1 | 227 |
| Science | 93 | - | - | 1 | 27 | - | - | - | 120 |
| Arts | 28 | - | - | - | 22 | - | - | - | 50 |
| Dental | 56 | - | - | - | 6 | - | - | - | 62 |
| Engineering | 72 | 1 | 2 | - | - | - | - | - | 72 |
| Total No. Examined | 442 | 1 | 2 | 1 | 117 | - | 1 | 1 | 559 |

Table ii.

| | | | | | | |
|---------|-----------|-----|--------------------------|-----|------------|-------|
| Males | No. exam. | 442 | No. of appointments sent | 555 | Attendance | 79.6% |
| Females | " | 117 | " | 169 | " | 69.2% |
| Total | " | 559 | " | 724 | " | 76.0% |

Group A. Active form of pulmonary tuberculosis.

Only one student showing an active form of pulmonary tuberculosis was discovered. He has been fully investigated and remains under treatment. So far, admission to a sanatorium has not been necessary.

Group B. Inactive form of pulmonary tuberculosis.

Three students were found in this group. Further investigation has cleared one, the remaining two are still being checked by radiological examination at regular interval.

Group C/

Group C. Other radiological abnormality.

Two students were so classified but no further action is required for them.

It is possible to argue on these figures that a great deal of trouble has been undertaken in order to discover four students who show some form of tuberculous infection of the lungs. To do so, would be to neglect the fact that of 559 students examined, all but four have been given the assurance that radiologically they are free from any evidence of pulmonary tuberculosis. Post war figures relating to the incidence of pulmonary tuberculosis, particularly in young adults, are alarming. Regular miniature chest radiography can do nothing to combat the incidence of this potentially serious disease. But it is possibly the most useful single measure for discovering the disease in its earliest phases when treatment is most likely to be of value.

I respectfully submit for consideration by the University authorities, that miniature chest radiography should be obligatory for all students annually. If 76 per cent of our students can attend on a voluntary basis, there is no valid reason why the remaining 24 per cent should not be made to attend.

2) Incidence.

In addition to the four students diagnosed by mass radiography as showing signs of tuberculous infection of the lungs (active 1; inactive 3), one other student with an active pulmonary lesion was discovered at routine medical examination. The figures/

figures for the year therefore, after full investigation had been made, were

Active pulmonary tuberculosis 2 (both males)

Inactive " " 3 (two males, one female)

These figures may not necessarily represent the true incidence of pulmonary tuberculosis among the students on this side of the University. There may have been other cases among students permanently domiciled in the town, who have remained under the supervision of their family doctor. No such student, however, has been notified to the Local Tuberculosis Authority.

Of students mentioned in previous Annual Reports, two failed to maintain satisfactory progress and were this year admitted to sanatoria. Four others, after varying periods, have been discharged from sanatoria and hope to resume classes in the coming Martinmas term. Fourteen still remain under observation, all but two, progressing very favourably.

3) Mantoux testing of medical students and B.C.G.

Vaccination.

Mantoux testing of students and subsequent vaccination with B.C.G. for those found Mantoux negative, involves a considerable number of visits to the Health Centre and accordingly to suit the convenience of many students undertaking vacation work in neighbouring hospitals, arrangements were made for the Mantoux test to be carried out at these hospitals. Full results are not yet available.

Of seventeen students tested here last term, five were found to be Mantoux negative and four of these were given B.C.G. vaccination.

Of the 156 medical students who have been Mantoux tested here, 135 (86.5 per cent) were found positive reactors. These students were drawn from all years of the Faculty, and the figure of 86.5 per cent positive reactors accords with the finding in other universities.

4) Record of cases reported in previous years.

From the inception of the Student Health Service here in October, 1948, eight students have required admission to sanatoria on account of pulmonary tuberculosis. This figure is in agreement with the estimate, that of all university undergraduates as a whole, at any one time, two per thousand will be in need of sanatorium treatment. A note on the progress of these eight students is given below.

In the last three years, twenty eight have shown radiological signs of pulmonary tuberculosis requiring further observation. That incidence also agrees closely with the estimated seven per thousand applicable to the general student population (Institute of Social Medicine, Oxford).

1948-49. Total students 931. Admitted to Sanatorium 1.

Female, Training College. Had been diagnosed prior to the inception of the Student Health Service but was admitted to a sanatorium during the year. The

The student has now resumed work.

1949-50. Total students 937. Admitted to Sanatoria 4.

1) Male, 4th Year Dentistry. Had been on the records of the local Chest Clinic as a case of tuberculosis since invalided from the Services after the war. Condition was deteriorating and the student was persuaded to discontinue his studies to undergo sanatorium treatment. His further progress is unknown as he has

intimated he has left this area permanently.

2) Male, Final Year Medicine. Discovered during routine examination. Required only a short period in a sanatorium during the summer vacation and returned to his studies.

3) Male, 2nd Year Science. Discovered at medical attendance. Spent 6 months in a local sanatorium, thereafter has been under the supervision of his Local T.B. Authority. Expects to resume classes in the coming Martinmas term.

4) Female, 2nd Year Science. Discovered at Mass Radiography. Investigation confirmed the presence of active tuberculosis and she was admitted to a local sanatorium. Resumed classes October, 1951.

1950-51. Total students 817. Admitted to Sanatorium 1.

Male, Final Year Arts. Discovered at Mass Radiography. Remained under observation for a time but failed to maintain satisfactory progress and was admitted to a sanatorium.

1951-52. Total students 767. Admitted to Sanatoria 2.

1) Male, Final Year Arts. Discovered at Mass Radiography 1949-50. He remained in good health while under observation until very recently when signs of renewed activity appeared and he was admitted to a sanatorium.

2) Female, 2nd Year Arts. Discovered at Mass Radiography 1950-51. Admitted to a sanatorium this year.

5) Student Tuberculosis Centre.

The British Student Tuberculosis Foundation was started over two years ago. It amalgamates the interests of various student and other interested associations and aims at opening in this country a 100-bedded Student Tuberculosis Centre where students convalescing from tuberculosis can be fitted for return to College by courses of study and lectures, set reading, tutorials etc. In a little over eighteen months British students have collected over £20,000 towards it.

It will take some time before this Centre can be brought into being, and meantime the Foundation have arranged to take over a section of Pinewood Hospital, Berkshire, a small experimental unit for men which was opened by the North West Metropolitan Regional Hospital Board. This section is expected to be ready in September 1952. It will have accommodation for sixteen male students. The medical care and supervision of the patients will be the responsibility of the physician superintending/

superintending the hospital, the academic side will be the responsibility of the Foundation. The average stay of a student patient is expected to be in the region of 3-4 months.

The Foundation is to be wholly responsible for occupational treatment and is now making arrangements for university teachers, principally from the University of London to visit the hospital regularly to give lectures and to supervise individual courses of study.

Entry is to be open to full time male students of any race, colour or creed, from any university in the British Isles. They will require to have completed the active phase of treatment, to be recovering satisfactorily and to be non-infectious in the sense of sputum negative. Applications will be submitted through the Student Health Service to the Student Tuberculosis Foundation.

Those facts have been brought to the notice of physicians in charge of sanatoria in this area and applications will be filed in due course for any of our own students who are interested and who fulfil the necessary conditions.

12) College Hostels. Medical Certificates.

This year every student applying for accommodation in a University residence or hostel was required to furnish a medical certificate of fitness. Sixty-three of these examinations were done by the Student Health Service. Wardens seem to approve the system and find it works satisfactorily.

The/

The suggestion put forward in an earlier section of this Report is simply an extension of this system whereby every student before acceptance into the University would be required to submit a detailed medical examination report from their own family doctor.

13. Conferences.

In July 1951 there was held at Cambridge under the auspices of the Nuffield Provincial Trust, the Third Conference on Student Health in British Universities and Medical Schools. The main sessions were devoted to discussions on

- 1) The causes of academic failure and its effect on mental health.
- 2) The influence of extra curricular activities on health.
- 3) American experience in Student Health.
- 4) Estimates of tuberculosis among British students.

This Conference saw the birth of the British Student Health Officers' Association. There are two classes of membership, a) Ordinary - open to whole time, medically qualified Student Health Officers and b) Institutional - available to institutions where Student Health Officers serve on a part time basis only.

In 1951, the Conference of the Home Universities, held in London, devoted one of its sessions to a consideration of Student Health. The Medical Officer was nominated by the University to attend for this part of the Conference.

In/ has been a most understanding and helpful Convenor

In September 1951, the University of Sheffield very kindly acted as hosts to Medical Officers from Northern England, Belfast and Scotland during a 3-day Conference.

14) Liaison.

The Medical Officer represents the Dundee side of the University on the Athletic Union Governing Board and the Tours Committee thereof. He is a member of the Recreation Park and Gymnasium Committee, University College, Dundee.

It was a great pleasure to receive from members of this University branch, an invitation to join the Association of University Teachers.

There is in Dundee, a smaller version of the main Student Health Committee of the University Court. It might be considered whether expansion of this subcommittee to include representatives from the Department of Physical Education, the Students' Representative Council and other student organisations, might not be of advantage in co-ordinating their various interests on this side of the University.

Acknowledgments.

It is a pleasure to express my thanks and gratitude not only to those who have participated in the professional work of the Student Health Service but also to those who have encouraged and fostered its development in this University.

There are so many, it is difficult to mention all by name and I apologise for any omissions. Professor A.E. Ritchie has been a most understanding and helpful Convener

of the Student Health Committee. Principal Wimberley of University College has at all times given helpful advice and sympathetic consideration to any suggestion touching the welfare of the students.

I am particularly indebted to Professor I.G. Hill of the Department of Medicine for his advice on medical cases referred to him, and to Professor D.M. Douglas for undertaking charge of all students requiring operative surgery.

Dr. D.G. McIntosh, Consultant Chest Physician, and his assistants have placed every facility of the Chest Clinic at our disposal and have gone to much trouble in advising on the treatment of all cases, or suspected cases, of tuberculosis among students.

Dr. W.M. Jamieson and the Staff of King's Cross Hospital have been very helpful in dealing with cases of infectious disease, as have Dr. Fraser Steele and Dr. Uytman with cases of psychoneurotic illness referred to them. I have also to thank the Wardens of College Hostels for their ready acquiescence in any suggestion I have made, and several teachers in various departments for their co-operation in the treatment of some "problem" students.

Lastly, a word on those for whose benefit the Health Service exists - the students themselves. As I am not myself a graduate of this University, I can mention this subject more freely. In the students I meet, the average standard that prevails as regards tidiness, good manners, general bearing and address, is a very high one. I have been much impressed by it. Their/

Their conduct and behaviour at Mass X-Ray Surveys, and in clinics and hospitals to which I have referred them, has been the subject of favourable comment from others. It is a pleasure to record this.

Four years experience suffices to have seen one generation of students pass through the University. It was a pleasure, not unmixed with regret, to have so many take the trouble to call and express their thanks before leaving.

Conclusion.

This Report comments on certain aspects of the work of the Student Health Service during 1951-52, its fourth year in operation. Figures showing the number of examinations, attendances etc. during the year are included, and these are analysed in detail in an appendix to the Report.

After four years experience, it may be permissible to draw some conclusions as to the way the Student Health Service is developing and in appendix (3) there is included a Table which summarises the figures for medical attendance, hospital admission, medical examination etc. during these four years.

It is at once apparent that the main emphasis is being laid on medical attendance and treatment during illness, and that the figures for routine medical examination remain comparatively static each year at about half the number of entrant students. It may be that the provision of medical attendance and treatment during illness means much more to the students concerned/

concerned than medical examination in health. This aspect of the work has developed very steadily, with Consultants and Specialists in various departments playing their part within the framework of the Service itself. It is very desirable that adequate arrangements exist for the care and treatment of students overtaken by ill health and this is a highly useful function of any Health Service. It involves considerably more than merely the question of adequate medical treatment. The student has to be considered in relation to his background. Even a short period of illness can seriously interrupt his academic progress. Any measure taken to avoid such interruption or to lessen the effects of it are greatly appreciated. Accordingly it has been possible on several occasions to make arrangements whereby even a student in hospital has been able to complete successfully a series of professional or degree examinations. The teachers concerned have been most helpful and co-operative. In the case of illness occurring in students away from home, notification is sent to the parents and they are kept informed of subsequent progress. Again liaison exists not only between the Health Service and hospitals and specialist departments, but also between the Health Service and teaching departments. From time to time the joint efforts of all of these are enlisted for the benefit of certain students.

But to lay the emphasis almost entirely on medical attendance/

attendance and treatment is to deny the Health Service its fullest scope and an opportunity of contributing to the "health" of students and the "prevention" of illness, which should be a function of at least equal importance.

I am not advocating out-and-out compulsion as regards medical examination. Physical well-being is only one of many factors that may be linked to academic worth and ability. But the "no-compulsion" policy leaves too many loopholes in the other direction. If a student can choose to avoid medical examination after entry in the University, there is no reason why he should not be required to undergo medical examination before entry. Nor is there any reason against the University authorities reserving to themselves the right of refusing entry to a student the subject of an adverse medical report from his family doctor as endorsed by the University Medical Officer.

In this Report I have outlined the arrangements such a measure would require. If the suggested measure were adopted there would still be available to students the existing facilities of the Student Health Service as at present - medical examination when wanted, medical attendance during illness, miniature chest radiography etc. - though probably with some modification of present arrangements. I submit the suggestion for consideration.

It has been possible during the year to render an occasional professional service to various members of Staff/

Staff. These services are on an unofficial basis but have given me much pleasure. No figures of attendances etc. made in this connection are included in the Report.

(1) No. of Students Attending.

(Signed) H. J. GIBSON,
Medical Officer,
July, 1952.

During the year under review, the matriculated students in the Dundee section of the University. Excluding Mass Radiography (which 558 students attended) 475 students attended the Health Service for purpose of medical examination and/or treatment. These were drawn from the various Faculties as under.

| | | |
|-------|-------------------------|-----|
| Men | Medical and Dentistry | 251 |
| | Science and Engineering | 142 |
| | Arts and Law | 20 |
| Women | All Faculties | 92 |
| | Total | 475 |

Of the remaining 558 students, some being permanently domiciled in Dundee would come under their family doctor for any treatment required, some would require no medical attention whatsoever throughout the year. It is impossible to assess accurately the numerical relationship between these two categories but if figures obtained in a small pilot survey are in any way representative, something like one third of all students go throughout the year without requiring medical advice or treatment of any kind.

(2) Attendances.

They

APPENDIX 1.

Details of Attendances, Conditions treated etc.
during academic year 1951-52.

(1) No. of Students Attending.

During the year under review, there were 767 matriculated students in the Dundee section of the University. Excluding Mass Radiography (which 559 students attended) 475 students attended the Health Service for purposes of medical examination and/or treatment. These were drawn from the various Faculties as under.

| | | | |
|-------|-------------------------|-----|-----------|
| Men | Medical and Dentistry | 221 | |
| | Science and Engineering | 142 | |
| | Arts and Law | 20 | |
| Women | All Faculties | 92 | Total 475 |

Of the remaining 292 students, some being permanently domiciled in Dundee would come under their family doctor for any treatment required, some would require no medical attention whatsoever throughout the year. It is impossible to assess accurately the numerical relationship between these two categories but if figures obtained in a small pilot survey are in any way representative, something like one third of all students go throughout the year without requiring medical advice or treatment of any kind.

(2) Attendances.

The/

The number of attendances made during the year, excluding Mass Radiography, was 1976.

| | | |
|----------------------------------------------------|------|------------|
| Full interview and medical examination | 56 | |
| Medical examination for entry into College hostels | 63 | |
| Medical examination for special purposes | 24 | |
| Attendances at Consulting Rooms for treatment | 1571 | |
| Domiciliary visits | 262 | |
| | 1976 | |
| Attendances for miniature chest X-ray | 559 | Total 2535 |

(3) Medical Attendance for Purposes of Treatment.

The following Table classifies the various conditions treated.

| | Students attended | Visits made | % of all visits |
|------------------------------------------------------|-------------------|-------------|-----------------|
| Diseases of Ear, Nose & Throat | 93 | 376 | 20.5 |
| Respiratory System | 51 | 254 | 13.8 |
| Skin | 52 | 226 | 12.2 |
| Minor Injury & Minor Sepsis | 52 | 211 | 11.1 |
| Diseases of Digestive System | 38 | 209 | 11.1 |
| Orthopaedic, Joint & Muscle conditions | 29 | 107 | 5.8 |
| Diseases of the Cardiovascular and Lymphatic Systems | 21 | 77 | 4.3 |
| Diseases of the Eye | 32 | 69 | 3.8 |
| Genito-Urinary System | 14 | 70 | 3.8 |
| Psychoneurotic Conditions | 14 | 63 | 3.2 |
| Diseases of the Central Nervous System | 6 | 61 | 3.1 |
| Dental, Infectious & Miscellaneous Conditions | 31 | 110 | 7.3 |
| | | 1833 | 100.0 |

These figures are further analysed in the following Tables.

Diseases of the Ear, Nose and Throat.

Number of cases of:-

Coryza/

| | | | |
|----------|------------------------------|----|--------------------------|
| | Coryza | 23 | |
| No. of | Pharyngitis | 13 | Percentage of all Visits |
| | Streptococcal Throat | 6 | |
| Men | Tonsillitis | 5 | |
| Women | Acute Otitis Media | 5 | 13.8 |
| | Chronic Nasal Catarrh | 5 | |
| Diseases | Acute Myringitis | 4 | |
| | Acute Sinusitis | 4 | |
| | Wax in ears | 4 | |
| | Hay Fever | 4 | |
| | Otitis Externa | 3 | |
| | Nasal Furuncle | 2 | |
| | Deviated nasal septum | 2 | |
| | Chronic granular pharyngitis | 2 | |
| | Ulcerative tonsillitis | 1 | |
| | Otosclerosis | 1 | |
| | Septal spur | 1 | |
| | Foreign body | 1 | |

| No. of Patients | No. of Visits | Percentage of all Visits |
|-----------------|---------------|--------------------------|
| Men 75 | 258 |) |
| Women 18 | 118 |) 20.5 |

Diseases of the Digestive System.

| | | | |
|----------|------------------------|----|--------------------------|
| | Gastro-Enteritis | 12 | |
| | Stomatitis | 10 | |
| | Dyspepsia | 5 | |
| | Peptic Ulcer | 4 | |
| | Acute appendicitis | 4 | |
| No. of | Appendicular colic | 2 | Percentage of all Visits |
| | Hepatitis | 3 | |
| Men | Cholecystitis | 2 | |
| Women | Gastritis | 1 | 13.2 |
| | Diarrhoea | 1 | |
| Diseases | Gingivitis | 1 | Dyspeptic Systems |
| | Intestinal colic | 4 | |
| | Intestinal obstruction | 1 | |

| No. of Patients | No. of Visits | Percentage of all Visits |
|-----------------|---------------|--------------------------|
| Men 29 | 173 |) |
| Women 9 | 36 |) 11.1 |

Diseases of the Respiratory System

| | | | |
|--------|------------------------------------------------------------|----|-------------------------------------------------------------------------------------------|
| | Bronchitis | 26 | |
| x | Pulmonary tubercle (including all cases under observation) | 16 | x (only 2 new cases of active tuberculosis were discovered during the year. See page 107) |
| No. of | Influenza | 5 | |
| Men | Bronchial asthma | 4 | |
| Women | Bronchopneumonia | 2 | |
| | Pleurisy | 1 | |
| Ortho | Pleurodynia | 1 | |

| No. of Patients | No. of Visits | Percentage of all Visits |
|-----------------|---------------|--------------------------|
| Men 46 | 234 |) 13.8 |
| Women 5 | 20 | |

Diseases of the Skin

| | |
|------------------------|---|
| Boils | 9 |
| Verruca | 5 |
| Acne | 5 |
| Seborrhoeic dermatitis | 5 |
| Urticaria | 5 |
| Sycosis Barbae | 4 |
| Sebaceous cyst | 3 |
| Paronychia | 3 |
| Epidermophytosis | 3 |
| Tinea cruris | 2 |
| Acne rosacea | 1 |
| Cheirpompholyx | 1 |
| Erythema multiforme | 1 |
| Bullous impetigo | 1 |
| Impetigo | 1 |
| Pilonidal sinus | 1 |
| Neurodermatitis | 1 |
| Herpes simplex | 1 |
| Pityriasis capitis | 3 |
| Pityriasis | 2 |
| Callosity foot | 2 |
| Carbuncle | 1 |
| Psoriasis | 1 |

| No. of Patients | No. of Visits | Percentage of all Visits |
|-----------------|---------------|--------------------------|
| Men 46 | 210 |) 12.2 |
| Women 6 | 16 | |

Diseases of the Cardio Vascular and Lymphatic Systems

| | |
|------------------------|---|
| Haemorrhoids | 7 |
| Lymphadenitis | 2 |
| Vasomotor instability | 3 |
| Cervical adenitis | 2 |
| Acholic jaundice | 1 |
| Frost bite | 1 |
| Raynaud's disease | 2 |
| Essential hypertension | 1 |
| Varix leg | 1 |
| Lymphadenoma | 1 |
| Thrombo angiitis | 1 |

| No. of Patients | No. of Visits | Percentage of all Visits |
|-----------------|---------------|--------------------------|
| Men 16 | 59 |) 4.3 |
| Women 5 | 18 | |

Orthopaedic, Joint and Muscle Conditions

Fibrositis/

| | | | |
|-------|------------------------|---|--------------------------|
| | Fibrositis | 9 | |
| No. | Muscle Strain | 3 | Percentage of all visits |
| | Tendo-vaginitis | 2 | |
| Men | Torn meniscus | 2 | |
| Women | Retropatellar fibrosis | 2 | 3.8 |
| | Dislocated finger | 1 | |
| Dis. | Calcaneal spur | 1 | |
| | Haematoma thigh | 1 | |
| | Ruptured tendon | 1 | |
| | Prolapsed I.V. disc | 1 | |
| | Fracture finger | 1 | |
| | Knee, ligamentous | 1 | |
| | insufficiency | 1 | |
| No. | Myalgia | 1 | Percentage of all visits |
| | Dislocated shoulder | 1 | |
| Men | Keinbock's disease | 1 | |
| Women | Metatarsalgia | 1 | 3.1 |
| | Sacro-iliac strain | 1 | |
| Dis. | Synovitis knee | 1 | |

| No. of Patients | No. of Visits | Percentage of all Visits |
|-----------------|---------------|--------------------------|
| Men | 27 | 98 |
| Women | 2 | 9 |
| | | 5.8 |

Diseases of the Eye

| | | | |
|-------|-------------------------|---|--------------------------|
| No. | Conjunctivitis | 7 | Percentage of all visits |
| | Hypermetropia | 6 | |
| Men | Hordeolum | 5 | |
| Women | Myopia with astigmatism | 5 | 9.01 |
| | Hypermetropia with | | |
| | astigmatism | 3 | |
| | Myopia | 2 | |
| | Angular conjunctivitis | 1 | |
| | Acute iritis | 1 | |
| | Blepharitis | 1 | |
| | Astigmatism | 1 | |

| No. of Patients | No. of Visits | Percentage of all Visits |
|-----------------|---------------|--------------------------|
| Men | 29 | 65 |
| Women | 3 | 4 |
| | | 3.8 |

Diseases of the Genito-Urinary System

| | | | |
|-------|---------------------|---|--------------------------|
| No. | N/S. urethritis | 3 | |
| | Acute orchitis | 2 | |
| No. | Pyelitis | 2 | Percentage of all visits |
| | Subacute nephritis | 1 | |
| Men | Paraphimosis | 1 | |
| Women | Partial nephrectomy | 1 | 9.3 |
| | (observation) | 1 | |
| | Cystitis | 1 | |
| | Varicocele | 1 | |
| | Leucorrhoea | 1 | |
| | Amenorrhoea | 1 | |
| | Dysmenorrhoea | 1 | |

| No. of Patients | No. of Visits | Percentage of all Visits |
|-----------------|---------------|--------------------------|
| Men 11 | 50 |) 3.8 |
| Women 3 | 20 | |

Diseases of the Central Nervous System

| | |
|----------------------------|---|
| Concussion | 3 |
| Migraine | 1 |
| Epilepsy | 1 |
| Cerebral thrombo-phlebitis | 1 |

| No. of Patients | No. of Visits | Percentage of all Visits |
|-----------------|---------------|--------------------------|
| Men 5 | 51 |) 3.1 |
| Women 1 | 10 | |

Dental Conditions

| | |
|-----------------------|---|
| Alveolar abscess | 3 |
| Impacted wisdom tooth | 1 |
| Infected socket | 1 |
| Fractured tooth | 1 |
| Pyorrhoea | 1 |
| Dentigerous cyst | 1 |

| No. of Patients | No. of Visits | Percentage of all Visits |
|-----------------|---------------|--------------------------|
| Men 6 | 21 |) 0.01 |
| Women 1 | 2 | |

Psychoneurotic Conditions

| | |
|-----------------------|---|
| Anxietystate | 6 |
| Nosophobia | 3 |
| Cardiac neurosis | 1 |
| Hysteria | 2 |
| War psychoneurosis | 1 |
| Leucotomy observation | 1 |

| No. of Patients | No. of Visits | Percentage of all Visits |
|-----------------|---------------|--------------------------|
| Men 11 | 48 |) 3.2 |
| Women 3 | 15 | |

Miscellaneous Conditions

| No. of Patients | No. of Visits | Percentage of all Visits |
|-----------------|---------------|--------------------------|
| Men 20 | 81 |) 7.3 |
| Women 11 | 29 | |

Cases/

Cases included:

| | |
|-----------------------------|---|
| Vaccination | 7 |
| T.A.B. Inoculation | 5 |
| Antitetanus inoculation | 1 |
| Oxyuris infestation | 1 |
| Fibroadenoma of breast etc. | 2 |

4) Summary of Attendances and Conditions treated.

| Diseases of the: | Men | No. of Visits | Women | No. of Visits | Total |
|---------------------------------------------------|-----|------------------|-------|------------------|-------|
| Ear, Nose & Throat | 75 | 258 | 18 | 118 | 376 |
| Respiratory System | 46 | 234 | 5 | 20 | 254 |
| Skin | 46 | 210 | 6 | 16 | 226 |
| Minor Injury & Minor sepsis | 48 | 190 | 4 | 21 | 211 |
| Digestive System | 29 | 173 | 9 | 36 | 209 |
| Bones, Muscles & joints | 27 | 98 | 2 | 9 | 107 |
| CardioVasc. & Lymphatic Systems | 16 | 59 | 5 | 18 | 77 |
| Genito-Urinary System | 11 | 50 | 3 | 20 | 70 |
| Eye | 29 | 65 | 3 | 4 | 69 |
| Psychoneurotic conditions | 11 | 48 | 3 | 15 | 63 |
| Central Nervous System | 5 | 51 | 1 | 10 | 61 |
| Dental Infection & Miscellaneous Conditions | 20 | 81 | 11 | 29 | 110 |
| Total | | | | 1833 | |

5)

Reference to Specialists

During the year under review 92 students were referred to Specialists in the Departments as shown below:

| | | |
|----------------|----|-----------------------|
| Surgical | 26 | |
| Eyes | 18 | (under Supplementary |
| E. N. T. | 12 | Ophthalmic Service) |
| Dental | 8 | |
| Skin | 7 | |
| Physiotherapy | 6 | |
| Tuberculosis | 4 | |
| Medical | 4 | |
| Orthopaedic | 3 | |
| Psychiatric | 2 | |
| Gynaecological | 1 | |
| Specific | 1 | Total 92 |

6) Admission to Hospital

During the year 23 students were admitted to hospital for the following conditions:

Surgical

| | | |
|--------------------------|---|----------|
| Acute appendicitis | 4 | |
| Haemorrhoids | 1 | |
| Urological investigation | 1 | |
| Fibroadenoma of breast | 1 | |
| Ingrowing toe nail | 1 | |
| Concussion | 1 | |
| Intestinal obstruction | 1 | |
| Impacted wisdom tooth | 2 | Total 12 |

Medical

| | | |
|------------------------|---|---------|
| Essential hypertension | 1 | |
| C.N.S. investigation | 1 | |
| Epilepsy | 1 | Total 3 |

King's Cross Hospital for Infectious Diseases

| | | |
|----------------------------|---|---------|
| Infective mononucleosis | 1 | |
| Cerebral thrombo-phlebitis | 1 | |
| Erythema multiforme | 1 | |
| Acute streptococcal throat | 1 | |
| Acute tonsillitis | 1 | Total 5 |

E. N. T.

| | | |
|-------------------------------------|---|---------|
| Submucous resection of nasal septum | 1 | Total 1 |
|-------------------------------------|---|---------|

Tuberculosis

| | | |
|------------------------|---|---------|
| Pulmonary tuberculosis | 2 | Total 2 |
|------------------------|---|---------|

APPENDIX 2.

Copy of Liverpool University Medical Examination
Form (completed by family doctor) is attached herewith.

ENTRANCE MEDICAL EXAMINATION

1. Every new undergraduate student entering the University must undergo a routine medical examination, conducted by the family doctor, before the start of the first semester of study.
 2. Students should complete the form attached to this letter and return it to the University Medical Officer.
 3. Students are advised to consult their family doctor for any special medical attention, if necessary, before completion of the form, and to inform the University Medical Officer of any special medical attention received.
 4. Special attention should be given to the following points:
 5. After completion of the form, the student should consult the University Medical Officer, The University Medical Officer will then arrange for the student to be examined and treated, if necessary.
- Yours faithfully,
The University Medical Officer

ONE

CONFIDENTIAL

THE UNIVERSITY OF LIVERPOOL

ENTRANCE MEDICAL EXAMINATION

INSTRUCTIONS FOR COMPLETING THIS FORM

(for the guidance of the student and the examining doctor)

1. Every new undergraduate entrant, before coming to the University, must undergo a routine medical examination, ordinarily by his family doctor, the findings of which must be recorded on this form.
2. Students should complete Part One of this form before going to the doctor (except, if in difficulty, § 4).
3. Students are advised : (i) that a doctor may reasonably ask them to return at a later date for examination, since completion of this form will take some time ; (ii) that since an examination of this character is not a provision of the National Health Service, a fee for the examination may be payable by the student.
4. Special attention is drawn to the note under § 7 on p. 4.
5. After completion, this form should be forwarded *by the examining doctor* direct to the University Medical Officer, The University, Liverpool, 3; and the certificate stating that this has been done should be signed and handed to the student.

Further particulars of student health and welfare services are given in the special pamphlet, " Student Health Service and Recreation," issued by the University.

FOR RECORD USE ONLY

195.....

PART ONE

TO BE COMPLETED BY THE STUDENT

FULL NAME (*Surname in Capitals*)

Age on October 1styearsmonths.

Permanent Home Address

Married or Single

Place of Birth.....

Family Doctor

Nationality.....

Prospective University Faculty.....

- (a)
- (b)
- (c)
 - (i)
 - (ii)
 - (iii)
- (d)
- (e)
- (f)

(g) Give particulars of all illnesses from which you have suffered.

(a)
(b)
(c)

(i)
(ii)
(iii)

Signature of parent or guardian _____

PART TWO

REPORT OF MEDICAL EXAMINER

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(a) Are you personally acquainted with the student ? If so, for how long ?</p> <p>(b) Are you the family doctor of the student ?</p> <p><i>Note.</i>—The answers to (a) and (b) should normally be Yes ; an explanation should otherwise be given.</p> <p>(c) Have you attended the student professionally ? If so, for what illnesses ?</p> | <p>(a)</p> <p>(b)</p> <p>(c)</p> |
| <p>GENERAL</p> <p>(a) How would you classify the student's physique ?</p> <p>(b) Is there any defect or deformity ?</p> | <p>(a) Exceptional, over-average, average, fair, poor (cross out all except one)</p> <p>(b)</p> <p>Give the height and weight :—</p> <p>.....ft.ins.</p> <p>.....st.lbs.</p> |
| <p>SPECIAL SENSES.</p> <p>It is requested that special attention be paid to this section, and appropriate advice given if necessary.</p> <p>(See also § 4 (f) on opposite page)</p> <p>(a) Is there disease of the eyes apart from refractive error ?</p> <p>(b) Is there evidence of past or present ear disease ?</p> <p>(c) Is there any defect of speech or voice ?</p> <p>(d) Has the student been given any advice in these matters ? If so, to what effect ?</p> | <p>VISION :—Distant. Without glasses. R..... L.....</p> <p>With glasses. R..... L.....</p> <p>Reading. Without glasses. R..... L.....</p> <p>With glasses. R..... L.....</p> <p>Colour (in appropriate cases and if facilities are available).....</p> <p>HEARING. R..... L.....</p> <p>(a)</p> <p>(b)</p> <p>(c)</p> <p>(d)</p> |
| <p>DIGESTIVE SYSTEM.</p> <p>(a) Are the teeth in a healthy condition ?</p> <p>(b) Is dental treatment necessary ?</p> <p>(c) If so, has the student been advised accordingly ?</p> <p>(d) Is there any evidence of past or present abdominal or urogenital disease ?</p> | <p>(a)</p> <p>(b)</p> <p>(c)</p> <p>(d)</p> |
| <p>HEART AND LUNGS.</p> <p>(a) Is there evidence of past or present disease ?</p> <p><i>Note.</i>—The chest and heart should be examined in all cases.</p> <p>(b) Has the student ever been X-rayed ? If so, when, where and with what result ?</p> <p><i>Note.</i>—All University students are required to undergo a mass-miniature radiographic examination of the chest (or to provide satisfactory evidence of a recent radiograph) in their first University term, and thereafter annually in the Summer Term.</p> | <p>(a)</p> <p>(b)</p> |

6. NERVOUS SYSTEM.

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| (a) Is there any history of epilepsy ? | (a) |
| (b) Is there any personal or family evidence of mental instability ? | (b) |
| (c) How would you describe the student emotionally ? (stolid, stable, reserved, self-reliant, excitable, vivacious, merry, highly-strung, unstable, etc.). | (c) |

7. SPECIAL REMARKS (if any).

NOTE.—The purpose of the University Health Service is to promote the health and well-being of students, and to give any necessary guidance (but not ordinary medical care and treatment) to individual students who may require it. Examining doctors are urged to co-operate with the University Medical Officer in this spirit, and to give any information or suggestions that may seem appropriate. The contents of this form are confidential to the University Medical Officer.

8. OPINION.

I certify that I have seen and examined the student named on this form, and on the information available to me, I am of the opinion student should be placed in :—

Class.....(for classification see below).

Signature.....

Date.....

Address.....

CLASSIFICATION.

Class 1. Those in good health, and free from any physical or mental defect.

Class 2. Those with minor or stationary defects, which are unlikely to be affected by their University career.

Class 3. Those whose physical or mental condition makes it desirable that they be reviewed by the University Medical Officer.

showing the number of enrolled students in the

Dundee side of the University, during these years.

[illegible]

Comments.

1) Voluntary Medical Examination.

The figures for students attending for medical examination remain at a fairly steady proportion - about one-half of the entrant First Year students.

2) Medical Attendance.

There has been a steady increase in the proportion of all enrolled students making use of the Health Service for purposes of treatment. The figures given below show the proportion of enrolled students attending.

| | |
|-----------|---------------|
| 1948 - 49 | 28.7 per cent |
| 1949 - 50 | 39.8 |
| 1950 - 51 | 61.6 |
| 1951 - 52 | 62.4 |

3) Mass X-Ray.

This figure remains at a fairly steady level, over 70 per cent of students notified, attending voluntarily for examination.

| | |
|-----------|-------------|
| 1949 - 50 | 75 per cent |
| 1950 - 51 | 72 |
| 1951 - 52 | 76 |

These figures do not represent the total proportion of students attending for chest X-ray, as in each year certain of the absentees were X-rayed at the Chest Clinic or in local hospitals.

4) National Health Insurance.

Despite a decrease in the total number of enrolled students, there has been a steady increase in the number of students registered as National Health Insurance patients and practically all students resident in College hostels are now included.

5)/

5) Classification of Attendances by the Nature of Conditions Treated.

As regards the nature of the conditions requiring treatment, the various bodily systems involved group themselves in an almost constant order of frequency over the four years. Diseases of the Ear, Nose and Throat with upper respiratory tract infections, nearly always head the list. Closely behind follow - diseases of the Skin, of the Respiratory System, and Minor Injury and Sepsis. Over the four years 1948-52, the incidence has been as follows. (Expressed to the nearest whole number)

| | |
|----------------------------------------|----|
| Diseases of the Ear, Nose and Throat | 18 |
| Diseases of the Respiratory System | 15 |
| Minor Sepsis and minor Injury | 13 |
| Diseases of the Skin | 12 |
| Diseases of the Digestive System | 12 |
| Diseases of the Eye and Visual Defects | 5 |
| Orthopaedic Conditions | 4 |
| Psychoneurotic Conditions | 3 |
| Cardiovascular Conditions | 3 |
| Genito-Urinary Conditions | 2 |
| Infectious, Dental and Miscellaneous | 13 |

Of which is maintained for each student who attends the Student Health Service here. Ideally, however, it is possible to correlate details as to social and economic circumstances only in the case of those students attending voluntarily for interview and full medical examination. Such students are comparatively few in number and tend to be drawn mainly from the first year of the various faculties.

The object of the present survey was to obtain information on a wider basis, and also partly to indicate the lines on which a similar but more extensive investigation might be held at some future time throughout/

APPENDIX 4.

Pilot Survey. Social, Economic etc.
Circumstances of Dundee Students.

Towards the end of the summer term, 1951-52, a questionnaire was submitted to 517 students in the Dundee side of the University, in which they were invited to supply certain information concerning weekly expenditure on meals and lodgings, type of living accommodation, their position as regards National Service and a number of other factors. There is no significance in the number of students to whom the questionnaire was submitted - they were simply those students who had attended the Mass Radiography survey a few months previously and whose names and addresses were readily available.

The points on which information was requested are all listed on the Oxford Student Health Form, a copy of which is maintained for each student who attends the Student Health Service here. Usually, however, it is possible to complete details as to social and economic circumstances only in the case of those students attending voluntarily for interview and full medical examination. Such students are comparatively few in number and tend to be drawn mainly from the First Year of the various Faculties.

The object of the present survey was to obtain information on a wider basis, and also partly to indicate the lines on which a similar but more extensive investigation might be held at some future time throughout/

throughout the whole College and Medical School.

The questionnaire was completed and returned by forty-one per cent of the students to whom it was submitted. Several factors probably contributed to this rather poor result. Possibly the end of term was an inconvenient time, no publicity was given to the survey or explanation of its purpose, and many students had left on vacation before examination results were available. Nevertheless, I wish to thank all those students who did take the trouble to complete and return the questionnaire.

There was a possibility that the result of the survey might have indicated a possible correlation between several of the different factors on which information was asked - e.g. between academic performance and living expenses, or between academic performance in those students who had completed National Service and in those still to do it. The number of replies was insufficient, however, to justify any deductions on these issues.

Possibly the sample - some twenty-five per cent of the total students in the Dundee side of the University - is too small altogether to be in any way representative and a statistician would doubtless object to inferences of any kind being drawn from the figures available.

212 replies in all were received. Replies from Arts and Law - Men, although useful as individual records, were too few in number to permit classification
as/

as a separate group and are not included in the figures shown in the Tables.

The remaining 191 replies are analysed in the Tables given below. Figures should be taken at their face value only. They merely indicate the possibilities in a survey of this nature. It was found most convenient to divide replies into three groups - 1) Medical and Dentistry - Men. 2) Science and Engineering - Men. 3) All Faculties - Women. The Tables are presented on this classification.

Percentages are usually expressed to the nearest whole number.

Table 1

Type of Accommodation, Weekly Expenses etc.

| | Medical & Science & All Facult. Total | | | |
|-------------------------|---------------------------------------|------|----------|-------|
| | Dental | Men | Eng. Men | Women |
| No. Submitted | 230 | 168 | 119 | 517 |
| No. Replying | 90 | 61 | 40 | 191 x |
| | 39% | 37% | 34% | 37% |
| Average Age | 24.4 yrs. | 21.9 | 22.0 | 23.16 |
| Living at Home | 35 | 38 | 19 | 92 |
| | 39% | 62% | 48% | 48% |
| Living in Univ. Hostels | 27 | 12 | 20 | 59 |
| | 30% | 20% | 50% | 31% |
| Living in Lodgings | 28 | 11 | 1 | 40 |
| | 31% | 18% | 2% | 21% |
| Weekly Expenses | 9 | 9 | 10 | 28 |
| Meals & Lodgings | | | | |
| Not stated | 10% | 15% | 25% | 15% |
| Under 50s. | 15 | 28 | 9 | 52 |
| | 17% | 46% | 23% | 27% |
| 50 - 60s. | 13 | 10 | - | 23 |
| | 14% | 16% | - | 12% |
| 60 - 70s. | 35 | 11 | 15 | 61 |
| | 39% | 18% | 38% | 32% |
| 70 - 80s. | 9 | 1 | 6 | 16 |
| | 10% | 2% | 14% | 8% |
| Over 80s. | 9 | 2 | - | 11 |
| | 10% | 3% | - | 6% |
| Daily Cigarettes-Nil. | 49 | 48 | 32 | 129 |
| | 54% | 79% | 80% | 68% |

Cigs./

Table 1 (cont.)

| | M. & D. Men | S. & E. Men | All F. Women | Total |
|---------------------------|-------------|-------------|--------------|------------|
| Cigs. 0 - 10 | 17 19% | 1 1.5% | 7 18% | 25 13% |
| Cigs. 10 - 20 | 23 26% | 11 18% | 1 2% | 35 18% |
| Cigs. Over 20 | 1 1% | 1 1.5% | - | 2 1% |
| Receiving Economic Aid | 71 79% | 46 75% | 24 60% | 141 74% |
| No Economic Aid | 19 21% | 15 25% | 16 40% | 50 26% |

x Excluding 21 replies from Arts and Law - Men.

Table 2

Attendance at Hospital, Doctor etc., National Service.

| | Medical & Science & All Faculties | | Total | |
|-----------------------------|-----------------------------------|-----------|------------|------------|
| | Dental Men | Eng. Men | Women | |
| No. Submitted | 230 | 168 | 119 | 517 |
| No. Replying | 90 39% | 61 37% | 40 34% | 191 37% |
| Attended Oculist | | | | |
| 1. For Glasses | 15 17% | 13 21% | 3 7.5% | 31 16% |
| 2. For Check | 6 7 % | 2 3% | 5 12.5% | 13 7% |
| Did not attend Oculist | 69 76% | 46 76% | 32 80% | 147 77% |
| Attended Hosp. | 3 | 3 | 2 | 8 |
| 1. As In-patient | 3% | 5% | 5% | 4% |
| 2. As Out-patient | 16 18% | 8 13% | 1 2.5% | 25 13% |
| 3. For X-Ray | 15 16% | 10 16% | 3 7.5% | 28 15% |
| Attended Dentist | 73 81% | 48 79% | 34 85% | 155 81% |
| Did not attend Dentist | 17 19% | 13 21% | 6 15% | 36 19% |
| Attended Doctor | 52 58% | 40 66% | 21 53% | 113 60% |
| Did not attend Doctor | 38 42% | 21 34% | 19 47% | 78 40% |
| Nation. Service Completed | 52 58% | 13 21% | - | 65 43% |
| Nation. Service still to do | 38 42% | 48 79% | - | 86 57% |
| British | 85 94% | 56 92% | 40 100% | 181 94% |
| Other Nationalities | 5 6% | 5 8% | - | 10 6% |

It would be unwise, for several reasons, to attempt to draw any firm conclusions from the figures shown above. Firstly, the sample itself is a small one, not only numerically but also as a proportion of the total number of students in Dundee. Secondly, the questionnaire was submitted not to all students but to a selected group, namely those who a few months previously had attended for miniature chest X-ray. These represented seventy-six per cent of all students given appointments, but it is not suggested that information as disclosed by this group is necessarily applicable to the entire student body. For example, medical students attend for miniature radiography in better numbers than students from other Faculties. This factor would have to be borne in mind when interpreting percentages applicable to the total number of students who replied to the questionnaire.

For these and other reasons therefore, this survey should be looked on as a descriptive one only. The figures and the findings are of interest, and on some points are corroborated by evidence available from other sources, but no precise accuracy is claimed for them nor is it inferred that they necessarily apply to the entire student body.

But without drawing any conclusions, comment might be allowed on certain points.

Living/ science and engineering had only 25 per cent.

Living Accommodation.

It was known that the three University hostels provide accommodation for roughly one quarter of the student population in Dundee. It was not known what proportion of the remaining three-fourths lived at home and what proportion in lodgings. From the replies received, 48 per cent of all students are shown as living at home, outnumbering those in lodgings by more than two to one. Among Science and Engineering Men, those at home outnumber those in lodgings by more than three to one, whereas among Medical Dental Men there is a fairly even distribution between students living at home, in hostels, and in lodgings.

Weekly Expenses.

Students were asked to notify their average weekly expenditure on meals and lodgings during term. Twenty-eight students did not reply to this question but they were all living at home and presumably found it difficult to make any fair estimate. Weekly expenditure between 60 - 70s. was recorded most frequently. Figures in excess of that were usually from married students and do not necessarily represent purely personal expenses.

Cigarette Smoking.

One rather doubts the accuracy of the figure of 68 per cent non-smokers as shown in the survey results. Medical and Dentistry Men returned 46 per cent as smokers, Science and Engineering Men only 21 per cent, just/

just 1 per cent above the figure given by the women. Of course, the numbers involved are very small and a possible explanation is that non-smokers tend to be more co-operative in replying to pilot surveys.

National Service.

The figures given under this heading would also require to be checked by a wider survey. 13 per cent of Science and Engineering Men shown as having completed National Service is fairly near the figure one might have expected. 52 per cent for Medical and Dentistry Men seems unduly high but may be explained by their longer curriculum and the inclusion still of a fair number of older men who began their studies after War or National Service.

Attendance at Hospital, Oculist, Doctor etc.

These figures are self-explanatory and are fairly well substantiated by evidence from other sources.

Number of Days Illness.

This point was included in the questionnaire but the figures received are not shown in the Tables. For all students, men and women, the average absence from classes on account of illness during the year was 1.82 days. Thirty days absence was the highest recorded but this takes no account of several students in sanatoria undergoing treatment for tuberculosis.

Academic Performance.

There was a possibility that the survey results might have permitted a comparison of academic performance/

performance between students who have completed National Service and those still to do it. I record only the actual findings in this particular survey which were that Non-National Service students from the negative aspect registered fewer failures, and from the positive achieved more Honours Certificates, than their fellows who had completed National Service.
